

City of Sparta
Request for Bids
Sewer CCTV Camera & Accessories
March 9th, 2022

The City of Sparta, Tennessee will receive sealed bids for the purchase of a new Sewer Closed Circuit Television (CCTV) and accessory equipment for the Sewer Department until 2:00 p.m. on Wednesday March 9th, 2022, at which time the bids will be publicly opened and read aloud. Bids are to be addressed to the City Administrator and delivered to the Sparta City Hall, 6 Liberty Square, PO Box 30, Sparta, Tennessee 38583, and must be enclosed in a sealed envelope and must be marked **“Bid for Sewer CCTV Camera System”** on the front of the envelope. All bids must be signed.

The City of Sparta reserves the right to reject any or all bids, to waive any irregularities in a bid, or to accept that bid which in the judgment of the Board of Mayor and Alderman of the City of Sparta is in the best interest of the City. The purchaser also reserves the right to require a bidder to submit evidence of qualifications as may be deemed necessary by the Purchasing Agent.

For further information regarding submission of a bid contact the City Administrator at Sparta City Hall, 6 Liberty Square, PO Box 30, Sparta, Tennessee 38583, telephone (931) 836-3248.

The City of Sparta does not discriminate based on race, color or national origin pursuant to Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d).

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Instructions to bidders:

Please submit prices for both lengths of cable length of 1000' and 656' for the choice of purchase. Include the specifics on the camera and accessories on a separate page when submitting the bid. If there are any questions about this bid please call the City Administrator, Brad Hennessee at 931-836-3248

Submit sealed bids to the City of Sparta 6 Liberty Sq, PO Box 30, Sparta, TN 38583, in a sealed envelope with "**Bid for Sewer CCTV Camera System**" marked on the envelope.

A guaranteed delivery time from the receipt of a written purchase order must be specified in the bid. No bid may be withdrawn for thirty (30) days from the date of the bid opening. Purchase orders will be issued only after approved by the Sparta Board of Mayor and Aldermen.

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Iran Divestment Act Tenn. Code Ann. 12-12-106

By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to 12-12-106.

CAMERA COST _____

SYSTEM & ACCESSORIES COST _____

CABLE LENGTH AND COST _____ FT _____

_____ FT _____

Time to complete delivery from issuance of Purchase Order _____

SIGNED _____ DATE _____

PRINT NAME _____ PHONE _____

COMPANY NAME _____ CELL _____

ADDRESS _____

CITY _____ ST _____ ZIP _____

EMAIL ADDRESS _____

WARRANTY _____

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SECTION 11000

PORTABLE PIPELINE INSPECTION SYSTEM

PART 1 - GENERAL

1 01 DESCRIPTION

- A This section includes the technical specifications for a closed circuit television (CCTV) camera

1 02 REFERENCES

N/A

1 03 RELATED WORK

N/A

1 04 SUBMITTALS

- A. Submittals for CCTV camera and associated equipment herein shall be provided to the City of Sparta, TN by mail or email at the addresses listed below:

Sparta City Hall
6 Liberty Square
Sparta, TN 38583

PART 2- MATERIALS

2.01 SYSTEM CONTROL UNIT WITH DUAL JOYSTICK CONTROL

- A. The materials being described herein are based upon the Southern Vac Rausch Mobile Pro C135 Portable Camera System. Other brands shall be considered acceptable, pending Bidder's submission of product information to the Project Engineer for review.

B. The portable system control unit is the source for all camera and transporter

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functions.

- a) A multi-function control unit shall be provided that is an **all-inclusive** system to operate the camera and transporter, including steering and electric lift of the crawler, with adjustment for the camera lights
- b) The control unit shall be portable, and compatible with the portable cable reel. The controller shall have the following features, as minimum
 - c) Built-in keyboard with text overlay
 - d) SD-Card slot for video and photo recording
 - e) 7" touch display for system status and settings
 - f) USB Port for macro and overlay control via external PC
 - g) Swivel mount to cable drum Cubix 300
 - h) Video output for external devices
 - i) Locating sonde control for camera/crawler systems
 - j) Dimensions: 16.5" x 12.6" x 6.25"
- k) The front panel of the system control unit shall include two (2) joysticks ergonomically mounted. The left joystick shall control the crawler functions, forward, reverse and left/right steering. The right joystick controls the camera functions, including pan and **infinite** tilt rotation. Additional joystick functions shall control every facet of camera/transporter operation, including remote electric lift
- l) The system control unit shall have a touch-screen display panel to display current system status, active camera, transporter, and current function
- m) The touch-screen display shall alert the operator when leak sensor detects low pressure in any camera or transporter.
- n) The front panel of the system control unit shall have an array of touch screen and joystick controls to operate camera functions, including manual and auto focus, 120:1 zoom manual and auto iris, and manual and auto lighting control.
- o) The system controls shall include pre-programmed macros for home position to return the camera head to center of the pipe operation, joint inspection sequence, and variable cruise control drive
- p) The system control unit shall have built-in menu visible via the touch-screen display and controlled via touch buttons. This service menu offers diagnostic and service information
- q) The system control unit shall have power supply input and throughput, video out, portable drum connection, and data link to PC for **macro** control and data overlay
- r) The control panel shall include an **integrated** overlay for footage distance counter.
- s) The system control unit shall include an integrated 12" sunlight viewable color monitor
- t) The system control unit shall provide all the necessary power and controls for operating every function of the camera and transporter. These functions shall include laser crack measurement. **Systems not capable of laser crack measurement shall be deemed unacceptable.**

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THE SYSTEM MUST INCLUDE THE FOLLOWING ADDITIONAL FEATURES

- Direct & highly accurate measurements
- Nitrogen pressurized camera and transporter modules with sensor-leak detection

2 02 PAN TILT ZOOM MAINLINE CAMERA

- A Pan, tilt and zoom camera shall be designed to inspect from 4" to 60" mainline pipe diameter. The camera shall be nitrogen pressurized with sensor leak detection displayed on the system control unit
- B The following features shall be included
- a) The camera shall be capable of infinite, continuous axial rotation, enabling seamless joint inspection.
 - b) The camera shall feature 280-degree lateral pan, enabling viewing the inside pipe wall and perpendicular laterals.
 - c) The camera shall include 10X optical and 12X digital zoom (120 I).
 - d) The camera shall include 6 high-power LED for short range illumination and 4 high-power LED with 6-degree reflector for long range illumination
 - e) The camera should include connections for additional lighting sets which can be mounted on the top and the bottom of the camera head with no exposed wires, cables, contacts, or inner connectors.
 - f) The camera head shall include two laser diodes integrated on either side of the camera lens for crack & joint measurement.
 - g) The camera must be equipped to perform laser crack measurements
 - h) The camera must work in conjunction with IT Pipes software
 - i) The camera shall have adjustable illumination settings which are controlled by touch screen on system control unit front panel.
 - j) The camera shall have a ¼" CCC-Chip sensor to provide an NTSC video with minimum 530 TYL resolution
 - k) The camera lens shall provide a 46-degree angle of view.
 - l) The camera shall have auto and manual focus adjustment which is controlled by joystick on system control unit.
 - m) The camera shall have auto and manual iris adjustment which is controlled by joystick on system control unit.
 - n) The camera shall be nitrogen pressurized with sensor leak detection for alerts displayed on the system control unit
There shall be no exposed wires, cable, contacts, or inner connectors.
 - o) The camera shall feature Quick-connect cam-lock connectors to connect to the

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crawler.

- p) The camera must be upgradeable to connect to an adjustable height extension which can center the camera manually in larger pipe diameters.
 - q) The camera shall be controlled via joystick and touch screen
- Steerable Camera Crawler
- r) The remote controlled steerable crawler must have an application range capable of 4" to 60" pipe diameter. The crawler assembly must include a motorized electric lift which can be adjusted inside the pipeline. The crawler shall include a color rear view camera to provide the operator the ability to view the cable while in reverse. The crawler must be fully synchronized with the cable reel.
 - s) The crawler shall have direct gear drive. No chains or belts are permitted.
 - t) The crawler shall have a remote electric lift with optional integrated rearview camera which can be removed to operate in obstructed small pipe.
 - u) The crawler must include complete wheel sets and height extensions for operation in pipe diameters from 6 to 60 inches.
 - v) The crawler must include an anti-rollover feature which is selectable on the system control unit.

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The crawler must feature a built-in inclinometer to provide data to measure inclination of the pipeline.

- w) The crawler must feature manual and auto steering to be controlled via the joystick on the system control unit
- x) The crawler must be fully synchronized with the cable reel via a synchronization sensor for forward and reverse operation to prevent running over the cable, being dragged by the rewinding cable, and for controlled cable payout.
- aa) The crawler must have additional weights available for superior traction
- bb) The crawler's wheels must be mounted via a quick-connect system for easy and swift setup.
- cc) The crawler tires must be stackable upon each-other to decrease setup time and to increase the weight. No spacers shall be required
- dd) The crawler must feature steerable 4-wheel drive and variable speed controlled via the joystick on the system control unit
- ee) The crawler must feature a mechanical quick-lock cam-lock connector to the mainline camera, with no exposed wires or contacts.
- ff) The crawler must be nitrogen pressurized for moisture prevention with sensor leak detection and alert on the system control unit.
- gg) The crawler must have a 512 Hz and/or 33 kHz sonde available for locating
- hh) The crawler must have provisions for a lifting and lowering hook to be able to insert the crawler utilizing a lowering rope assembly
- ii) A set of (4) Pneumatic wheels shall be provided
- jj) A set of (4) 4" and (4) 8" aggressive high-traction wheels shall be provided.
- kk) Kit, Wheel Set, Rubber Set of 4 4" wheels
Set of 4 Spacer Hubs (for 8"+)
Set of 4 10" wheels
- II) Transporter must be compatible with stainless steel QuickLock Pipe Point Repair system, or approved equal.

2.03 PORTABLE CABLE REEL

- A. The cable reel shall be designed with capacity for 1000' of multi-conductor mainline inspection cable The reel shall be motorized and fully synchronized to the crawler. It shall feature slack and loop sensors to control even payout and rewind of the cable The reel shall be equipped with cross-lead spindle for neat cable wind-up

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- B The portable cable reel shall contain the following (as a minimum)
- a) The cable reel shall include a cable drum capable of storing up to 1000' of Kevlar reinforced multi-conductor mainline cable.
 - b) The cable reel shall be motorized with variable payout and rewind speed, which is fully synchronized to the crawler with slack sensor. Cable reels not capable of full synchronization with the crawler shall be deemed unacceptable
 - c) The cable reel shall be fully synchronized to the crawler for slack adjustment, auto payout and rewind
 - d) The cable reel shall include a safety loop sensor detection to prevent loops during cable wind- up. Cable reels that do not include a safety loop sensor shall be deemed unacceptable.
 - e) The cable reel shall include an electronic distance counter
 - f) The cable reel shall feature a cross-lead spindle for neat cable wind up
 - g) A powerful electric motor shall drive the cable reel.
 - h) The cable reel shall be portable / mobile.
 - i) Cable reel dimensions shall be 16.75" L x 16.75" W x 18.9" H
 - j) Cable reel weight shall be 110 lbs maximum including 1000' of multi-conductor cable.

2.04 MULTI-CONDUCTOR MAINLINE CABLE, 1,000'

- a) The cable shall have a minimum break strength of 1,500 lb.
- b) The cable shall be no more than 9.1mm in diameter.
- c) The cable shall be multi-conductor Kevlar reinforced
- d) The cable shall have a military style and heavy duty cardanic C-connector plug to the crawler.
- e) 1000' of cable shall be provided

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2.05 DATA COLLECTION SYSTEM

- A. The Data Collection System shall include an industrial quality laptop computer and accessories. The system shall meet or exceed the following specifications
- B. Data Collection Laptop shall include (as minimum)
- a) DELL Latitude 14 Rugged (5404), or approved equal
 - b) Windows 7 Professional, 64-bit, English, or approved equal
 - c) 8GB (1x8GB) 1600MHz DDR3L Memory, or approved equal
 - d) Sealed Internal RGB Backlit English Keyboard
 - e) UMA VideoCard
 - t) 14.0 HD (1366x768) High brightness display with Camera & Microphone
 - g) Software for Dell Wireless 1707, or approved equal
 - h) Hard Drive - 512GB Mobility Solid State Drive
 - i) Tray load DVD Drive (Reads and Writes to DVD CD)
 - j) Dell Wireless 1707 1x1 Single Band 802.11 bgn ., or approved equal
 - k) Bluetooth 4.0 LE
 - l) US Power Cord
 - m) Documentation/ Disks Safety Environment and Regulatory Guide
 - n) (English/French Multi-language)
 - o) Software for Integrated Camera
 - p) Getting Started Guide English Getting Started Guide
 - q) Primary Battery 6-cell (65Wh) Lithium Ion battery with Express Charger or approved equal
 - r) Dock Connector and Triple RF Passthru
 - s) EnergyStar 6.0
4th gen Intel® Core i7 4650U Processor (1.7 GHz, 4M Cache), or approved equal
 - t) POSM Lite Software, or approved

equal

3.01 OPERATION MANUALS

- A. The instructions shall provide step-by-step use methods and include adequate illustrations, diagrams and other aids. Special attention shall be given to safety considerations for operating personnel and the equipment

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3.02 TRAINING/INSTRUCTION

- A The supplier shall fully instruct buyer's employees in the operation of the equipment furnished after delivery. The instruction period shall be of sufficient duration to fully familiarize the buyer's operational personnel. The instruction shall be conducted by the supplier's field technician and shall include component familiarization, theory of operation, field procedures, techniques of use, troubleshooting, maintenance recording and logging of sewer conditions and safety procedures
- B One (1) day of training shall be included in the pricing.

3.03 WARRANTY

- A. Manufacturer shall provide a one (1) year warranty for the products, beginning on the day that the equipment is delivered to the Owner

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For Title VI and IX compliance, it is requested that the following information be voluntarily disclosed and returned with your bid:

GENDER _____ Male _____ Female

RACE _____ Caucasian African American

_____ Other (Please Specify)

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