



300 S. Dayton Street • Davison, MI 48423

P: (810) 412-4740 F: (810) 412-4743

www.S1Eonline.com

SPECIFICATIONS FOR: A PORTABLE MAINLINE VIDEO INSPECTION SYSTEM

GENERAL

The purchaser is requesting sealed bids for 1 (one) self-contained and fully integrated portable crawler system for pipe inspection in 6" to 12" main lines, and up to 18" with an additional wheel set. It is the intention of these specifications to describe the minimum acceptable requirements for this system.

The system and equipment proposed shall be new and unused except for the necessary testing and calibration.

Responses to each specification item contained herein must be indicated by marking either YES or NO in the blank. Items left blank shall be regarded as a NO response. All specifications will be scored and the final selection will be partially based upon the supplier's ability to meet the specific equipment requirements.

All sections and requirements of this bid proposal must be completed and all information provided must be accurate and truthful. Failure to meet this requirement will result in rejection of the bid proposal.

Determination of the successful bidder will be made based on the following criteria.

1. Bid price
2. Performance Evaluation of the system proposed.
3. Specification compliance.
4. Length of delivery time.
5. Service center availability.
6. Warranty.
7. Reference list.

The City Purchasing Officer reserves the right to rule upon each of the criteria set forth above in a manner that best meets the needs of The City _____.



CHECK LIST OF SPECIFICATIONS:

To be returned with Bid or Proposal. Please include the manufactures spec sheet also.

Please provide a check for each item that the proposed equipment meets. If blank please provide an explanation in the additional information section. If any options are not specified, please list these additional options in the same space for review and consideration.

GENERAL OVERVIEW:

COMPLY:

The mainline system shall be compact and portable integrated with the following features.

- | | | |
|--|----------|---------|
| o Self-propelled robotic transporter | Yes_____ | No_____ |
| o Includes 10 inch touchscreen | Yes_____ | No_____ |
| o Motorized cable reel drum of TV transmission power cable | Yes_____ | No_____ |
| o Color video inspection system capable of inspecting 6" to 12" main lines | Yes_____ | No_____ |
| o Additional wheel sets for 18" pipes size | Yes_____ | No_____ |

The mainline system shall be designed to support all of the following features and additions for maximum system configuration and flexibility.

- | | | |
|--|----------|---------|
| o Ability for transporter to be free wheel so the cable can be rewound at the same speed to avoid running over the cable | Yes_____ | No_____ |
| o Cable reel drum must have variable speed, power cable and level rewind | Yes_____ | No_____ |
| o Cable reel drum must have a telescopic handle and wheels for easy portability | Yes_____ | No_____ |
| o Cable reel drum must be able to hold a minimum of 600' feet of multi-conductor flexible video cable | Yes_____ | No_____ |

The motorized reel cable drum shall incorporate the latest digital technology in programmable microprocessor.

- | | | |
|---|----------|---------|
| o Windows apps controls for video functionalities | Yes_____ | No_____ |
| o Able to connect to an external monitor | Yes_____ | No_____ |
| o Additional source of AC power outlet | Yes_____ | No_____ |
| o Ability to pan & rotate the camera on the transporter | Yes_____ | No_____ |
| o Allow brightness control for lighting in pipes | Yes_____ | No_____ |
| o Integrated transporter controls for direction and speed | Yes_____ | No_____ |

OPERATING PLATFORM: (Shall Incorporate At Minimum)

COMPLY:

- | | | |
|--|----------|---------|
| • Windows 7 x64 Professional operating system for ease-of-use | Yes_____ | No_____ |
| • Intel i5 processor to allow seamless multi-tasking | Yes_____ | No_____ |
| • Windows Apps to control for video playback, record and store(save) | Yes_____ | No_____ |



- Gigabit Ethernet port for various network connection Yes_____ No_____
- Wireless "N" network enabled for wireless internet connections Yes_____ No_____
- Minimum 500 GB solid state drive for rapid boot-up and file storage Yes_____ No_____
- Minimum 8 GB 240-Pin DDR3 SDRAM to increase computer speed and usability Yes_____ No_____

CONTROL PANEL DISPLAY: (Shall Incorporate At Minimum)

COMPLY:

- 10" LED Touchscreen for quick navigation and user access Yes_____ No_____
- 1024 x 768 high (native) resolution for better brightness and contrast Yes_____ No_____
- Ability to display digital text editor and touch keyboard interface Yes_____ No_____
 - Supported external USB port for wireless keyboard Yes_____ No_____
- Read to external USB and flash drive port for data storage Yes_____ No_____
- Interface must include wireless "N" remote access Wi-Fi to other computer Yes_____ No_____
- Built with external recordings to USB, SD or SSD for data storage Yes_____ No_____

PAN & ROTATE CAMERA: (Shall Incorporate At Minimum)

COMPLY:

- Camera can rotate 360 degrees and pan 180 degrees for full view of laterals and joints Yes_____ No_____
- Have a fixed focus at 6 through 24 inch pipe size Yes_____ No_____
- Adjustable camera lift height for various size pipes Yes_____ No_____
- Built with impact resistant and replaceable polycarbonate camera dome Yes_____ No_____
- System available in NTSC or PAL format Yes_____ No_____
- Ability to produce high resolution camera picture pixel of 640 x 480 Yes_____ No_____
- Must have variable hi-intensity LED's lights to provide pipe illumination Yes_____ No_____
- Built with imager sensitivity at 1 Lux Yes_____ No_____
- Pan & Rotate camera head must be submersible Yes_____ No_____

SYSTEM RECORDER: (Shall Incorporate At Minimum)

COMPLY:

- Must have an easy 'One-Touch' recording option from the touchscreen Yes_____ No_____
- Built with user accessible USB 2.0 and 3.0 ports to transfer all files from pc Yes_____ No_____
- Take snapshots in JPEG/ PNG (image formats) during inspections Yes_____ No_____
- Record in MPEG 4 compressed video for ideal data sharing Yes_____ No_____



- Compatible with other multi-format data collection programs Yes_____ No_____
- Built with auxiliary video output ports for external screen monitor Yes_____ No_____
- Ability to display multi-monitor Windows operations Yes_____ No_____
- Must have automatic file storage to user directories and storage media Yes_____ No_____

ON-SCREEN TEXT DISPLAY: (Shall Incorporate At Minimum)

COMPLY:

- Must have multi-tab or page text entry screen for data collection Yes_____ No_____
- Must have digital on-screen distance counter in meters or feet Yes_____ No_____
- Ability to enter user job and multi-run tabs to allows documenting inspection Yes_____ No_____
- Ability to export footage counter reading to third-party software Yes_____ No_____
- System must be compatible with Third-Party PACP software integration Yes_____ No_____

TRANSPORTER: (Shall Incorporate At Minimum)

COMPLY:

- Built with six wheels and be all-wheel drive(AWD) for better control Yes_____ No_____
- Must have no less than three (3) available wheel sets for various pipe size ranges Yes_____ No_____
- Must be able to inspect 6'' to 12'' pipe diameters (Up to 18'' with additional wheel sets) Yes_____ No_____
- Tractor speed and camera can be controlled by tether pendant on the reel Yes_____ No_____
- Wheels must be high-grip polymer rubber tires for demanding conditions Yes_____ No_____
- Built with heavy-duty planetary gear transmission for longer runs Yes_____ No_____
- Tractor motor must be built with 159:1 reduction ratio for better controls Yes_____ No_____
- Must incorporate leak/ pressure test valve/ port test for water intensive pipes Yes_____ No_____
- Must have hardened helical final drive gears for increased durability Yes_____ No_____
- Ability to easily/ rapidly change wheel set with single retaining nut Yes_____ No_____
- Weight of transporter must be no less than 35 lbs. Yes_____ No_____
- Transporter Dimension must be no shorter than 19'' L x 3.5'' H x 5'' W Yes_____ No_____
- Transporter body must be submersible for various pipe conditions Yes_____ No_____
- 9 high intensity LED lateral lights Yes_____ No_____



MOTORIZED REEL CABLE DRUM: (Shall Incorporate At Minimum)

COMPLY:

- Reel must be motorized and have the ability to rewind and payout Yes_____ No_____
- Must have variable speed video cable retrieve and payout Yes_____ No_____
- Must have automatic free wheel drum clutch to aide an inspection Yes_____ No_____
- Must have footage count mechanism Yes_____ No_____
- Must have quadrature encoder that is 100 pulses per foot Yes_____ No_____
- Direct drive level wind system should be linked to drum movement to level Yes_____ No_____
- Reel weight must be no more than 160 lbs. with 600 feet Yes_____ No_____
- Reel Dimensions must be no more than 29" H x 20" W x 21" D to fit in small areas Yes_____ No_____
- Reel must be splash resistant with rain cover for unexpected weather conditions Yes_____ No_____

- Must have an auxiliary AC input port for external power Yes_____ No_____
- Motorized reel can be powered up with 1000 watt inverter Yes_____ No_____

SERVICE:

COMPLY:

Provides up to eight (8) hours or one (1) day of operator training performed on-site or webinar by a factory trained specialist. Training such as operator use of all equipment, preventive maintenance, diagnostic trouble-shooting, and equipment repair will be provided. Yes_____ No_____

Remotely accessible interface for software upgrades and trouble-shooting support including diagnostic services. Yes_____ No_____

Supply one(1) complete manufactures user's manual. Yes_____ No_____

INSURANCE:

Not Applicable

WARRANTY:

All items furnished in accordance with these specifications shall be covered by the manufacturers and/or suppliers standard warranty or guarantee on new equipment. The minimum warranty period of the new video inspection equipment will be one (1) year for all parts and labor on manufacturers' defects. **The warranty statement must be included with the bid response to be considered a valid bid.**



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BIDDER'S PROPOSAL
A PORTABLE MAINLINE VIDEO INSPECTION SYSTEM
(This portion of the form can be customized for additional requirements)

DATE: _____

CITY: _____

We, the undersigned, agree to furnish ALL MATERIALS AND LABOR TO PROVIDE A PORTABLE CCTV MAINLINE VIDEO INSPECTION SYSTEM for _____, in accordance with the attached minimum specifications, which are part of this proposal, at the following price:

BID: Bid amount for Portable CCTV Mainline Video Inspection System \$ _____

SUBMITTED BY:

FIRM: _____
ADDRESS: _____
BY: _____
PRINTED: _____
TITLE: _____
PHONE: _____
FAX: _____