

REQUEST FOR QUOTATION	<b>TROY SCHOOL DISTRICT</b> 1140 RANKIN, TROY, MICHIGAN 48083 248-823-4052 FAX: 248-823-4077	REQUISITION
No. <b>9661</b>		
DUE DATE <b>2-24-10</b> NO LATER THAN <b>3 p.m.</b>		DATE <b>02-09-10</b>

**REQUEST FOR QUOTE - NOT AN ORDER**

THIS FORM MUST BE UTILIZED WHEN RESPONDING TO THIS REQUEST  
 BID ENVELOPE ENCLOSED

**THE RFQ NUMBER MUST APPEAR ON ALL QUOTATIONS AND RELATED CORRESPONDENCE, THIS IS NOT AN ORDER**

Quantity	DESCRIPTION	UNIT PRICE	AMOUNT
	<p>Please supply us with your bid to furnish the Troy School District with <b>Security Cameras and Mounting Boxes for School Buses.</b></p> <p style="text-align: center;">Copies of the bid are available at:</p> <p style="text-align: center;"><a href="http://www.troy.k12.mi.us/purchasing/items_out_for_bid.htm">www.troy.k12.mi.us/purchasing/items_out_for_bid.htm</a> (left column)</p> <p style="text-align: center;">Bid recaps will be available at:</p> <p style="text-align: center;"><a href="http://www.troy.k12.mi.us/purchasing/items_out_for_bid.htm">www.troy.k12.mi.us/purchasing/items_out_for_bid.htm</a> (right column)</p> <p style="text-align: center;"><u>FACSIMILE BID IS NOT ACCEPTABLE</u></p> <p>Bids will not be accepted if submitted after the deadline specified (local time) in the advertisement to bid or in the information to bidders. The late submission of a bid makes the bid nonrepsonsive and is a material defect which shall not be waived by the Board of Education. Delays in the mail will not be considered. All Late bids in the mail will be returned to the bidder unopened.</p> <p>Proposal for the submission of alternatives by vendors will be accepted and reviewed. However, if any substitution or departure is not clearly noted and described, it will be understood that the bid intends to exactly meet the specifications.</p> <p>The Board of Education shall be the sole judge as to whether the proposed goods are "equal" or "approved". Quotations must be mailed or delivered to the Purchasing Office, 1140 Rankin, Troy, MI 48083 no later than 3 p.m. on the date shown above. Michigan State Sales and Use Taxes and Federal Excise Taxes do not apply unless otherwise indicated. Exemption certificates will be furnished when necessary. This request imposes no obligations on the buyer. The Board of Education reserves the right to accept or reject any or all bids or to split awards by items or to accept bids, which will best serve the Board of Education.</p>		

**THIS AREA MUST BE FILLED IN**

DELIVERY TIME	PRICES FIRM FOR	NAME OF COMPANY	TELEPHONE NO.
TERMS		NO. & STREET	FAX #
FOB DELIVERED	ALL DELIVERY CHARGES MUST BE INCLUDED IN PRICES SHOWN	CITY, STATE & ZIP CODE	E-MAIL
CONTACT PERSON (PLEASE PRINT)		SIGNATURE	DATE



**Troy School District**  
**Bid # 9661**  
**School Bus Security Cameras**

The Troy School District is seeking qualified vendors to provide and install digital security cameras on District owned school buses. The District is seeking unit prices for both the camera system and the mounting boxes, with the intent to install as many units as our budget will accommodate. Responding vendors are asked to provide pricing for individual units as well as bulk purchases. To maintain consistency and compatibility, the following specifications for camera and mounting boxes/hardware are applicable:

**Brand**

**SEON EXPLORER MX4 SYSTEM** or other compatible system incorporating the specifications listed below. Bidders proposing alternate make/model of camera and/or mount must be willing to provide, free of cost, a test unit for District's usage. Such unit to be mounted within District owned bus on trial basis for not less than five (5) school days.

**Digital Video Recorder (DVR) Minimum Specifications**

- DVR shall record \4 independent channels of video simultaneously  
**“Switching” systems are not acceptable**
- DVR must have dual stream for lower bandwidth applications for all video channels. Each channel of video must record two independent video streams; each stream shall be independently configurable for resolution. The purpose of this feature is to allow for high quality recording at all times with the ability to stream the second channel of video through lower bandwidth transmission mediums
- DVR must support data storage on 2.5” mobile ruggedized hard drives
- DVR hard drive must connect to a PC or laptop via a USB cable
- DVR hard drive must be hot-swappable, and mounted in a removable, locking carrier
- DVR must be able to transfer recorded video and audio to a removable USB Flash drive
- DVR must offer a “One Touch Download” feature to download recordings with a single key press
- DVR must be capable of both vertical and horizontal mounting, including under seat
- DVR must have a wiring consolidator for ease of installation
- Must record 4 channels of audio with two additional audio inputs

- Input voltage: 8 - 32 VDC
- Recorded Resolution: Selectable 720 x 480, 720 x 240 or 360 x 240
- Compression: MPEG4
- Recorded Quality Settings: 4 levels, adjustable for each channel
- Recording Rate: DVR must be capable of recording 4 independent channels of video at a resolution of 720 x 480 and at an aggregate frame rate of 120FPS (30FPS/camera @ D1 Resolution)
- Hard disk capacity: 80 GB, 120 GB, 160 GB or higher
- Display modes: Single camera, Quad
- Playback rate: 1/32 to 64x
- Search function: By time and date or event, alarms, signals
- User interface: OSD with remote control or pointing device, web browser, vMax software suite
- DVR must include Ethernet network port (RJ45) for connection to a Local Area Network (LAN) or wireless modem
- DVR must support industrial Wi-Fi networking with Smart-Reach Mobile (wireless bridge) or equivalent with roaming capability. **Consumer grade wireless bridge is not acceptable.**
- DVR must have alarm settings and programmable by recording frame rates, quality per video channel
- DVR must have configurable protected memory for alarms
- DVR must have programmable timer record settings with selectable frame rates and image quality
- DVR must have multilevel user access control and must be password protected
- Records and displays time and date
- Built-in fan (reversed to draw clean filtered air into DVR); field replaceable filter
- Field upgradeable firmware and hard drives
- Built-in real time clock with automatic Daylight Savings Time adjustment (selectable on/off)
- Automatic Daylight savings start/end dates and times setting must have the option to be configurable
- All external signal, speed, GPS and CAN inputs must be connected through a wiring consolidator module, which can be installed in a separate location from the DVR.
- Supports an optional GPS receiver for recording and displaying vehicle position, direction and speed
- Geo-fencing with GPS receiver
- Geo-fencing parameters must be configurable

- Records and displays vehicle speed using optional speed harness; external speed conditioner NOT required
- Records and displays up to ten functions (signals) including brake lights, stop lights, warning lights, turn signal, and stop arm, wheelchair lift, etc. (user programmable)
- Compatible with J1939 (CAN bus) - records and displays up to 10 signals
- On screen voltage recording
- Temporary power button for operation and programming when bus is off
- Automatic repeat-record when hard drive is full (user selectable on/off)
- Delay Off: Records after bus turned off 0 - 60 min (User selectable)
- Delay On: Start Record can be delayed for 0 - 60 min (User selectable)
- High and Low temperature protection: the DVR will power up but will not start recording until a safe internal temperature is reached
- Programmable monitor output for quad view or toggle view of video
- Built-in internal heater standard
- Smart-Start power up protection to prevent damage from voltage transients
- Front panel video output for easy setup and programming
- Back-up battery saves settings for 10 years without powering the unit
- Recorded video and audio can be transferred to a PC by means of the hot-swappable hard drive or USB flash drive or wireless transmission via Smart Reach mobile (industrial wireless bridge) or equivalent
- Software is provided at no extra charge to save recordings in a proprietary EDS format or a standard AVI format, which can be played back on a standard PC running Windows XP, XP Pro or Vista
- 1-year parts and labor warranty.

### **DVR Enclosure Minimum Specifications**

- 18-gauge steel enclosure, powder painted finish with tamper proof lock
- Lock box and DVR are integrated with removable locking door for easy access to the DVR. **Separate lock box is not acceptable.**
- Door must have rounded edges for safety. **Straight edges are not acceptable**
- DVR is attached to a low profile mount plate
- Must be capable of vertical, sideways, and horizontal mounting
- Dimensions: 2.5 " x 7 " x 9.5" (HxWxD)

## **Other Requirements**

- Decoy systems must use live cameras

## **Installation**

- Responding bidder **MUST** provide complete installation by factory trained and authorized technicians
- Installation **MUST** be performed at the District's Transportation facility located at 120 Hart Street, Troy, MI 48098 unless specifically agreed to by Troy School District

## **References**

- Responding bidder **MUST** provide minimum of three (3) references, (public school systems preferred) where product has been provided within last 2 years.

**Troy School District  
Bid # 9661  
School Bus Security Cameras**

**Make/model of Camera proposed** \_\_\_\_\_

Unit cost per camera (less than 5 units)                   \$\_\_\_\_\_

Unit cost per Enclosure (less than 5 units)                   \$\_\_\_\_\_

Unit cost for installation (less than 5 units)                   \$\_\_\_\_\_

Other Costs (Must Specify)   \$\_\_\_\_\_

**Bulk purchase Costs**

Unit cost per camera (6 to 10 units)   \$\_\_\_\_\_

Unit cost per Enclosure (6 to 10 units)   \$\_\_\_\_\_

Unit cost for installation (6 to 10 units)   \$\_\_\_\_\_

Other Costs (Must Specify)   \$\_\_\_\_\_

Unit cost per camera (10 to 20 units)   \$\_\_\_\_\_

Unit cost per Enclosure (10 to 20 units)   \$\_\_\_\_\_

Unit cost for installation (10 to 20 units)   \$\_\_\_\_\_

Other Costs (Must Specify)   \$\_\_\_\_\_

Unit cost per camera (21 to 30 units) \$ \_\_\_\_\_

Unit cost per Enclosure (21 to 30 units) \$ \_\_\_\_\_

Unit cost for installation (21 to 30 units) \$ \_\_\_\_\_

Other Costs (Must Specify) \$ \_\_\_\_\_

Unit cost per camera (31 to 50 units) \$ \_\_\_\_\_

Unit cost per Enclosure (31 to 50 units) \$ \_\_\_\_\_

Unit cost for installation (31 to 50 units) \$ \_\_\_\_\_

Other Costs (Must Specify) \$ \_\_\_\_\_

Unit cost per camera (51+ units) \$ \_\_\_\_\_

Unit cost per Enclosure (51+ units) \$ \_\_\_\_\_

Unit cost for installation (51+ units) \$ \_\_\_\_\_

Other Costs (Must Specify) \$ \_\_\_\_\_

Company \_\_\_\_\_

Representative \_\_\_\_\_

Title \_\_\_\_\_ Phone \_\_\_\_\_

Email \_\_\_\_\_ Fax \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_



**Troy School District  
Bid # 9661  
School Bus Security Cameras**

**REFERENCES**

**Company:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Company:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Company:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Troy School District  
Security Cameras for Buses  
Bid 9661**

	<b>Unity School Bus Parts</b>	<b>247 Security Inc.</b>	<b>Fortress Systems International</b>
<b>Make/Model of Camera</b>	<b>MX4B/SQ306A1</b>	<b>514W-004</b>	<b>FMobile 1CX6M-4CHGP</b>
	<u><b>Unit Cost</b></u>	<u><b>Unit Cost</b></u>	<u><b>Unit Cost</b></u>
Camera (less than 5)	1,335.00 complete system	2,404.00 ea	177.00
Enclosure (less than 5)	incl	-	1,152.00 w/1 cam
Installation (less than 5)	200.00 complete system	310.00 ea	267.00
Other	1,070.00 DVR system only	-	439.00 optional Wi-Fi Download
	320.00 Decoy system only		
	175.00 decoy install only		
Camera (6-10 units)	1,300.00 complete system	2,372.00 ea	177.00
Enclosure (6-10 units)	incl	-	1,152.00 w/1 cam
Installation (6-10 units)	200.00 complete system	310.00 ea	267.00
Other	1,070.00 DVR system only	-	439.00 optional Wi-Fi Download
	320.00 Decoy system only		
	175.00 decoy install only		
Camera (10-20 units)	1,280.00 complete system	2,340.00 ea	177.00
Enclosure (10-20 units)	incl	-	1,152.00 w/1 cam
Installation (10-20 units)	200.00 complete system	300.00 ea	267.00
Other	1,070.00 DVR system only	-	439.00 optional Wi-Fi Download
	320.00 Decoy system only		
	175.00 decoy install only		
Camera (21-30 units)	1,280.00 complete system	2,290.00 ea	177.00
Enclosure (21-30 units)	incl	-	1,152.00 w/1 cam
Installation (21-30 units)	200.00 complete system	300.00 ea	267.00
Other	1,070.00 DVR system only	-	439.00 optional Wi-Fi Download

**Troy School District  
Security Cameras for Buses  
Bid 9661**

	<b>Unity School Bus Parts</b>	<b>247 Security Inc.</b>	<b>Fortress Systems International</b>
	320.00 Decoy system only		
	175.00 decoy install only		
Camera (31-50 units)	1,245.00 complete system	2,240.00 ea	177.00
Enclosure (31-50 units)	incl	-	1,152.00 w/1 cam
Installation (31-50 units)	200.00 complete system	290.00 ea	267.00
Other	1,070.00 DVR system only	-	439.00 optional Wi-Fi Download
	320.00 Decoy system only		
	175.00 decoy install only		
Camera (51+ units)	1,195.00 complete system	2,209.00 ea	177.00
Enclosure (51+ units)	incl	-	1,152.00 w/1 cam
Installation (51+ units)	200.00 complete system	275.00 ea	267.00
Other	1,070.00 DVR system only	-	439.00 optional Wi-Fi Download
	320.00 Decoy system only		
	175.00 decoy install only		

*Bearcom: No Response*

*Brinker Tech Team: No Response*

*Complete Communications Inc.: No Response*

*Cynergy Wireless: No Response*

**Troy School District  
Security Cameras for Buses  
Bid 9661**

	<b>Fortress Systems International</b>		<b>Gatekeeper Systems</b>		<b>A Parts Warehouse</b>	
<b>Make/Model of Camera</b>	<b>FMobile FM411-4CHGPS-HSD</b>		<b>N404</b>		<b>FMobile 1CX6M-4CHGP</b>	
	<u><b>Unit Cost</b></u>		<u><b>Unit Cost</b></u>		<u><b>Unit Cost</b></u>	
Camera (less than 5)	177.00		\$855.00		177.00	
Enclosure (less than 5)	1,273.00	w/1 cam	n/a		1,145.00	w/1 cam
Installation (less than 5)	267.00		\$300 + \$25/extra camera		225.00	
Other	439.00	optional Wi-Fi Download	\$215 extra day/night cameras; \$90 IR Illuminator; \$150 GPS		425.00	optional Wi-Fi Download
Camera (6-10 units)	177.00		855.00		177.00	
Enclosure (6-10 units)	1,273.00	w/1 cam	n/a		1,145.00	w/1 cam
Installation (6-10 units)	267.00		\$300 + \$25/extra camera		225.00	
Other	439.00	optional Wi-Fi Download	\$215 extra DN cameras; \$90 IR Illuminator; \$150 GPS		425.00	optional Wi-Fi Download
Camera (10-20 units)	177.00		855.00		177.00	
Enclosure (10-20 units)	1,273.00	w/1 cam	n/a		1,145.00	w/1 cam
Installation (10-20 units)	267.00		\$300 + \$25/extra camera		225.00	
Other	439.00	optional Wi-Fi Download	\$215 extra cameras; \$90 IR Illuminator; \$150 GPS		425.00	optional Wi-Fi Download
Camera (21-30 units)	177.00		855.00		177.00	
Enclosure (21-30 units)	1,273.00	w/1 cam	n/a		1,145.00	w/1 cam
Installation (21-30 units)	267.00		\$250 + \$25/extra camera		225.00	
Other	439.00	optional Wi-Fi Download	\$215 extra cameras; \$90 IR Illuminator; \$150 GPS		425.00	optional Wi-Fi Download

**Troy School District  
Security Cameras for Buses  
Bid 9661**

	<b>Fortress Systems International</b>	<b>Gatekeeper Systems</b>	<b>A Parts Warehouse</b>
Camera (31-50 units)	177.00	855.00	177.00
Enclosure (31-50 units)	1,273.00	n/a	1,145.00
Installation (31-50 units)	267.00	\$250 + \$25 extra camera	225.00
Other	439.00	\$215 extra cameras; \$90 IR Illuminator; \$150 GPS	425.00
			optional Wi-Fi Download
Camera (51+ units)	177.00	855.00	177.00
Enclosure (51+ units)	1,273.00	n/a	1,145.00
Installation (51+ units)	267.00	\$250 + \$25 extra camera	225.00
Other	439.00	\$215 extra cameras; \$90 IR Illuminator; \$150 GPS	425.00
			optional Wi-Fi Download

*Intelligent Choice: No Response  
LVC Technologies: No Response  
Technology Solutions: No Response*