

OBION COUNTY BOARD of EDUCATION

VIDEO SYSTEM UPGRADE

HILLCREST, LAKE ROAD, AND RIDGEMONT SCHOOL

SPECIFICATION PACKAGE

The Obion County Board of Education is now accepting bids to upgrade the existing video systems at Hillcrest Elementary, Lake Road Elementary, and Ridgemont Elementary Schools. Complete specifications are as follows:

BIDDER REPRESENTATION

Each bidder by submitting their bid represents that:

1. They have read and understand the project documents and their bid is based in accordance thereof.
2. A representative of the bidder has visited the site and familiarized themselves with the local conditions under which the work is to be performed.
3. Their bid is based upon the materials, systems and equipment described in the project documents without exception.

DEFINITIONS

1. A bid is a complete and properly signed proposal to do the work or designed portion thereof for the sum stipulated therein supported by data called for by the bidding documents.
2. Base bid is the sum stated in the bid for which the bidder offers to perform the work described as the base, to which work may be added or deducted for the sums stated in the alternate bids.
3. An alternate bid is an amount stated in the bid to be added to or deducted from the amount of the base bid if the corresponding change in project scope, materials, or methods of construction described in the bidding documents is accepted.
4. A price is an amount stated in the bid as a price per unit of measurements for materials or services as described in the contract documents.

PROCEEDURES

1. Bids are to be **submitted in duplicate**
2. Bidder may list any voluntary alternatives on a separate bid form.
3. All copies of the bid shall be enclosed in a sealed envelope. The envelope shall be addressed to the owner, and identified with the words "**BID ENCLOSED VIDEO SYSTEM UPGRADE, Obion County Board of Education**" plainly written on the face thereof.
4. Bids are to be filled in by typewriter or manually in ink.
5. Bids are to be submitted to:
OBION COUNTY BOARD of EDUCATION
1700 N FIFTH ST.
UNION CITY, TN. 38261
6. Bids are to be received by **Oct 1, 2014 at 11 a.m.**
7. Bids will be opened immediately thereafter, at the above location.
8. The owner retains the right to reject any or all bids,
9. It is the intent of the owner to award this project to the lowest reasonable bidder, provided the bid has been submitted in accordance with the requirements of this document, is judged to be reasonable, and does not exceed the funds available for this project.
10. Bids are to be signed by persons legally authorized to bind the bidder to a contract.

INSURANCE

The successful bidder shall purchase and maintain insurance for the protection from claims which may arise out of or the result from the contractors operation as part of this project, whether such operations be by the contractor or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable.

1. Claims under workers or workmen's compensation, disability benefit or other similar employee benefit act.
2. Claims for damages because of bodily injury, occupational sickness or disease, or death of the contractors employees
- 3 .Claims for damages because of bodily injury, sickness or disease or death of any person other than the contractors employees
4. Claims for damages insured by usual personal injury liability coverage which are sustained by any person as a result of an offense directly or indirectly related to the employment of such persons by the contractor or by any other person
5. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.
6. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required above shall be written for not less than any limits of liability required by law.

GENERAL

The owner shall supply necessary water and electricity for installation. The owner shall permit the use of toilet and wash-up facilities.

GENERAL CONDITIONS

OWNER: The owner is the person or entity identified as such in the owner-contractor agreement and is referred to throughout as if singular in number and masculine in gender. The term owner means the owner or his authorized representative.

The owner shall furnish information or services under the owners control with reasonable promptness to avoid delay in the orderly progress of the work.

If the contractor fails to correct defective work or persistently fails to carry out the work in accordance with the contract documents, the owner, by written order signed personally or by an agent of owner, may order the contractor to stop work, or any portion thereof, until cause of such order has been eliminated.

If the contractor defaults, or neglects to carry out the work in accordance with the contract documents and fails within seven days after receipt of written notice from the owner to commence and continue such corrections, the owner may make good such differences. In such case an appropriate change order shall be issued deducting from payments then and thereafter due the contractor the cost of correcting such deficiencies.

The contractor is the person or entity identified as such in the owner-contractor agreement and is referred to throughout the contract documents as if singular in number and masculine in gender. The term contractor means the contractor or his authorized representative.

Unless otherwise provided in the contract documents, the contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery,

transportation, and other facilities and services necessary for the proper execution and completion of work

The contractor shall at all times enforce strict discipline and good order among his employees, in particular while children are present.

The contractor warrants to the owner that all materials and equipment furnished under this contract will be new unless otherwise specified, and that all work will be of good quality. The warranty period shall be for one year from the acceptance of the completed work. All extended warranties offered by the manufacturer shall be effective until such limits expressed by the manufacturer have expired.

The contractor shall pay all sales, consumer, use, and other similar taxes for the work or portions thereof.

The contractor, upon being awarded the contract, shall submit for the owner's information an estimated progress schedule for the work.

The contractor, upon acceptance of his proposal, will honor this project completion date of ___-___-_____. If the contractor is unable to comply with this completion date, without proper documented justification to the owner's satisfaction, he will forfeit payments not to exceed 1% (one percent) of the total proposal per day.

The contractor shall be responsible for all cutting, fitting, or patching that may be required to complete the work or to make its several parts fit together properly.

PROTECTION OF PERSONS AND PROPERTY

The successful contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work. The contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to:

1. All employees on the jobsite
2. All the work, all materials, and equipment to be incorporated therein.
3. All other employees, students, and guest at the job site.
4. Other property at the site or adjacent thereto.

QUALIFICATIONS:

“Contractor shall comply with Public Chapter 587 of 2007, as codified in Tennessee Code Annotated Section 49-5-413, which requires all contractors to facilitate a criminal history records check conducted by the Tennessee Bureau of Investigation and the Federal Bureau of Investigation for each employee prior to permitting the employee to have contact with students or enter school grounds when students are present.”

QUALITY ASSURANCE

The contractor shall have the experience of at least three (3) acceptable jobs in the United States within the past five (5) years. This work shall be in locations and conditions similar to those at Obion County Schools.

The contractor shall employ only qualified and experienced workers skilled in the work required for this project.

CLEANUP

Refuse and debris accumulated from work is required as part of this project, shall be regularly removed from the job site by the contractor and before final acceptance of this project by the owner.

Successful bidder will be responsible for removal and proper disposal of any existing equipment being replaced, unless otherwise notified in writing by the owner.

WARRANTY

The Contractor shall provide a minimum of 1-year warranty, commencing with the date of final acceptance.

The warranty coverage shall not be pro-rated or limited to the amount of usage.

The warranty submitted must have the following characteristics:

1. Must warrant materials and workmanship
2. Must warrant that the materials installed meet or exceed the product specifications
3. Must have provisions to either make a cash refund or repair or replace such portions of the installed equipment materials that are no longer serviceable to maintain serviceable and useable equipment.
4. Must be a warranty from a single source covering workmanship and all self-manufactured or procured materials.

TECHNICAL SUPPORT

The successful bidder shall provide a toll-free line for technical support at no additional charge to the Obion County Schools during the warranty period. Bidder is required to provide 48 hour response time on any problems that may occur with the digital video server, cameras, computers, servers, switches, network cabling and camera cabling.

SUBMITTALS

Submit with bid:

1. Manufacturers data certifying compliance with these specifications
2. Certified list of existing installations, including owner representative and telephone number, attesting the compliance with quality assurance information.

Submit upon notice of award

1. A complete list of suppliers and sub-contractors, **especially if suppliers are different than those specified.**
2. Copies of insurance certificates
3. Verification of compliance with **TCA 49-5-413**

UTILITIES

The successful bidder shall be responsible for the location of all utilities. Any utilities that have to be re-located or repaired as a result of this contract will be the responsibility of the contractor. The Board of Education shall be held harmless of liability in case of any damages.

QUALITY STANDARDS OF INSTALLATION

Upon completion of project, representatives of the Owner, Contractor, and Manufacturer prior to acceptance by the owner shall inspect the installation

The use of “Brand names, Trademarks, and Professional Services” is to establish a minimum standard of quality.

PAYMENT OF CONTRACT

The owner upon final acceptance of the project by the owner will pay a payment of 100% of the contract amount to the contractor

No partial payments for labor or material will be made on this project.

SPECIAL REQUIREMENTS

The operations performed under this contract shall be closely scheduled, coordinated and conducted in such manor and sequence to cause the least interference with normal flow of traffic. Work is not to inhibit the regular operations of school bus traffic unless coordinated with the owner and is to maintain proper access for any emergency and utility personnel.

ACCESS TO JOB SITE

The owner will designate to the contractor means of access to the job site and for vehicle parking. The contractor shall instruct his personnel, sub-contractors and vendors accordingly.

Equipment and supplies may be stored at the job site in an area designated by the owner.

The owner will not be responsible for the security for materials stored on the job site and will not be responsible for any damages to materials or equipment used in the scope of work.

Any damages to the ground shall be corrected to the satisfaction of the owner.

SCHEDULE

Upon notice of award, successful bidder is to supply a complete schedule for the scope of work.

COMPONENT SPECIFICATIONS

32 CHANNEL NETWORK VIDEO RECORDER

IP Video Input:	32-ch
Two-way audio input:	1-ch, BNC (2.0 Vp-p, 1 kΩ)
CVBS Output:	1-ch, BNC(1.0Vp-p, 75Ω) Resolution: 704×576(PAL); 704×480(NTSC)
HDMI Output:	1-ch, resolution: 1920 × 1080P / 60Hz, 1600 × 1200 / 60Hz, 1280 × 1024 / 60Hz, 1024 × 768 / 60Hz
VGA Output:	1-ch, resolution: 1920 × 1080P / 60Hz, 1600 × 1200 / 60Hz, 1280 × 1024 / 60Hz, 1024 × 768 / 60Hz
Recording Resolution:	5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF / DCIF /

	2CIF / CIF / QCIF
Audio Output:	2-ch, BNC(Linear Electrical Level, 600Ω)
Synchronous Playback:	16-ch 4CIF
Playback resolution:	5MP / 3MP / 1080P / UXGA / 720P / VGA / 4CIF
Capacity:	Up to 4TB capacity for each disk
SATA:	8 SATA interfaces
eSATA:	1 eSATA interface
Serial Interfaces:	1 RS-232, 1 RS-485 for PTZ control, 1 RS-485
USB Interface:	2, USB2.0
Alarm In:	16
Alarm Out:	4
Network bandwidth:	Up to 80Mbps input, 160Mbps output, up to 128 network streams
Dual network interface:	10M / 100M / 1000M self-adaptive Ethernet interface, dual IP, load balancing, network redund.
Power Supply:	100~240 VAC, 6.3A, 50~60Hz
Consumption:	≤45W
Working Temperature:	-10°C ~ +55°C (14 °F ~ 131 °F)
Working Humidity:	10% ~ 90%
Chassis:	19-inch rack mountable 2U chassis
Dimension:	445 × 470 × 90 mm (17.52" ×18.5"× 3.54")
Weight(without HDD):	≤ 8 kg (17.64 lb) (without hard disk or DVD-R/W)

NETWORK VIDEO MANAGEMENT SOFTWARE

LIVE VIEW

Multi-screens for main view and screen can be separated by dragging the tab

Picture capture and real-time recording in live view mode

Digital zoom

Channels can be managed by group

Cycling live view

Easy configuration of brightness, contrast, saturation and hue parameters.

Record file and capture pictures are easily managed

Instant playback functions enables the quick switch of the live view and playback

Two-way audio

PTZ control full-function remote PTZ and lens control

Flexible patrol and pattern settings

Record

Graphically recording schedule

Variety of recording types (event and normal)

Remote control the recording on the device side

Configurable recording schedule template

Distributed PC NVR deployment and management

Pre-allocate hard disk for recording

VIDEO PLAYBACK

Record files searching by channel, time, event; fast forward play and single frame play

Resume function for disconnected video channels; Filter the search result by record types

Locate with processing bar exactly

Multi-screen playback simultaneously

Capture pictures when playback; Download data when playback

Clip record file when playback; Volume control during playback

Smart searching for event record when playback

USER MANAGEMENT

Client user of management; Channel-detailed permission control; Three user management levels

Functions description

DEVICE MANAGEMENT

Supports DVR/DVS/IPC/IP Dome/ Decoder/NVR connection

Adding and deleting device and remote device parameters configuration

Search the active on-line devices; Device adding by domain name

LOG MANAGEMENT

Client log query; Remote device log query and back-up; Backup client logs; Check log files

ALARM

Provide multiple alarm types; including HDD full alarm, HDD error alarm; video loss alarm,

Video tamper alarm, motion detection alarm, I/O alarm, server status abnormal alarm, etc.

VIDEO WALL

Video wall multiple output mode; Adding decoding streams by dragging mouse

E-MAP

E-Map eagle view operation; parent map and child map function to link the map

Locate camera position by dragging channel icon. Alarm information and event image display on the map

OTHERS

Multi-screen display, manual lock screen, display system status (CPU, time_

Configuration files import/export; Display information of channel

VIDEO ENCODER FOR EXISTING ANALOG CAMERAS

H.264/MPEG4/MPEG2/MJPEG encoding standards supported
 Support encoding video at up to 4CIF resolution
 One independent PoE network interfaces for DS-6701/6704HFI models;
 Connectable with network HDD in NAS, IPSAN mode
 Support multiple network protocols, including IPv4/v6, HTTP, HTTPS, QoS layer3 DiffServ, FTP, SMTP, Bonjour, UPnP, SNMPv1/v2c/v3, OnVIF, PSIA, SOCKSv4/v5, etc.;

Multiple PTZ protocols

Video/Audio input

Video Compression H.264 / MPEG4 / MPEG2 / MJPEG

Video input BNC (1.0 Vp-p, 75 Ω)

Audio Compression G.711u

Audio input 1-ch,

3.5mm interface (2.0 Vp-p, 1 kΩ) (LINE IN)

Video/Audio output

Audio output 1-ch, 3.5mm interface (Linear, 600 Ω)

Recording resolution 4CIF / 2CIF / CIF / QCIF

Frame rate 25 fps (P) / 30 fps(N)

Video bit rate

Audio bit rate 64 Kbps

Dual-stream Support

Stream type Video, Video & Audio

Data Storage

NAS, iSCSI, IPSAN, MicroSD

32G for microSD storage

External Interface

Network interface

1 RJ-45 10 M / 100 Mbps adaptive Ethernet interface (PoE) 1 RJ-45 10 M / 100 M /1000 Mbps

adaptive Ethernet interface

Protocols

IPv4/v6, HTTP, HTTPS, QoS layer3 DiffServ, FTP, SMTP, Bonjour, UPnP,

SNMPv1/v2c/v3(MIB-II), DNS, DynDNS, hkDDNS, NTP, RTSP, RTP/RTCP, TCP, UDP,

IGMP, ICMP, DHCP, ARP, SOCKSv4/v5, PSIA, OnVIF, CGI, netFilter

Serial Interface

1 half-duplex RS-485 interface

1 RS-232 interface

3MP IR Vandal Proof Dome Network Camera

Image Sensor:	1/3" Progressive Scan CMOS
Minimum Illumination:	0.19 lux @F2.0, AGC ON 0 lux with IR
Shutter Time:	1/30s ~ 1/100,000s
Lens:	4mm @F2.0, angle of view: 75.8° (2.8mm, 6mm, 12mm optional)
Lens Mount:	M12

Day& Night:	True
Digital Noise Reduction:	3D DNR
Wide Dynamic Range:	Digital WDR
Video Compression:	H.264/M-JPEG
H.264 Compression Profile:	Main profile
Bit Rate:	32 Kbps~16Mbps
Dual Stream:	Yes
Max Image Resolution:	2048×1536
Frame Rate:	60Hz: 15fps(2048 x 1536), 30fps(1920 × 1080),30fps(1280 x 720)
Image Settings:	Sat, bright, contrast adjust through client soft or web browser
BLC:	Yes, zone configurable
Network Storage:	NAS
Alarm Trigger:	Motion detection, tampering alarm, network disconnect, IP address conflict, storage full, storage error
Protocols:	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, ICMP,IGMP,SNMP, FTP, 802.1X, QoS, HTTPS
System Compatibility:	ONVIF, PSIA, CGI
General Functionalities (Security):	User authentication, watermark
Communication Interface:	1 RJ45 10 M / 100 M Ethernet interface
Power Supply:	12 V DC ± 10%; PoE (802.3af)
Power Consumption:	Max. 5W (7W with ICR on)
Working Temperature (Operating Conditions):	-30 °C –60 °C (-22 °F–140 °F) Humidity 95% or less (non-condens)
Impact Protection:	IEC60068-275Eh, 50J; EN50102, exceeding IK10
IR Range:	approx 10 to 30 meters
Dimensions:	Φ 111 × 82 mm
Weight:	500g (1.1 lbs)
Ingress protection:	IP66 / IK10

3MP IR Vandal Proof Bullet Network Camera

Image Sensor:	1/3" Progressive Scan CMOS
Minimum Illumination:	0.19 lux @F2.0, AGC ON 0 lux with IR
Shutter Time:	1/30s ~ 1/100,000s
Lens:	4mm @F2.0, angle of view: 75.8° (2.8mm, 6mm, 12mm optional)
Lens Mount:	M12
Day& Night:	True
Digital Noise Reduction:	3D DNR
Wide Dynamic Range:	Digital WDR
Video Compression:	H.264/M-JPEG
H.264 Compression Profile:	Main profile
Bit Rate:	32 Kbps~16Mbps
Dual Stream:	Yes
Max Image Resolution:	2048×1536
Frame Rate:	60Hz: 15fps(2048 x 1536), 30fps(1920 × 1080),30fps(1280 x 720)
Image Settings:	Sat, bright, contrast adjust through client soft or web browser
BLC:	Yes, zone configurable
Network Storage:	NAS
Alarm Trigger:	Motion detection, tampering alarm, network disconnect, IP address conflict, storage full, storage error
Protocols:	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, ICMP,IGMP,SNMP, FTP, 802.1X, QoS, HTTPS
System Compatibility:	ONVIF, PSIA, CGI
General Functionalities (Security):	User authentication, watermark
Communication Interface:	1 RJ45 10 M / 100 M Ethernet interface
Power Supply:	12 V DC ± 10%; PoE (802.3af)
Power Consumption:	Max. 5W (7W with ICR on)
Working Temperature (Operating Conditions):	-30 °C –60 °C (-22 °F–140 °F) Humidity 95% or less (non-condens)
Impact Protection:	IEC60068-275Eh, 50J; EN50102, exceeding IK10
IR Range:	approx 10 to 30 meters
Dimensions:	Φ 111 × 82 mm
Weight:	500g (1.1 lbs)

Ingress protection:	IP66
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3MP WDR IP BOX CAMERA WITHOUT LENS

Image Sensor:	1/3" SONY Progressive Scan CCD
Minimum Illumination:	Color: 0.1 lux@F1.2, AGC on B/W: 0.01 lux@F1.2, AGC on
Shutter Time:	1s ~ 1/100,000s
Lens Mount:	C/CS Mount
Day& Night:	ICR
Digital Noise Reduction:	3D DNR
Wide Dynamic Range:	120dB
Auto Iris Lens:	DC drive
Compression Standard	
Video Compression:	H.264/Mpeg4/M-JPEG
Bit Rate:	32 Kbps~16Mbps
Audio Compression (-S):	G.711 / G.726
Audio bit rate (-S):	64Kbps (G.711) / 16Kbps (G.726)
Image	
Max Image Resolution:	2048×1536
Frame Rate:	60 Hz: 20fps (2048 x 1536), 30fps (1920 × 1080), 30fps (1280 x 720)
Image Settings:	Saturation, brightness, contrast adjustable through client software or web browser
BLC:	Yes, zone configurable
3rd stream frame rate:	Independent setting, up to: 60Hz: 20fps (2048 x 1536)
Network	
Network Storage:	NAS
Alarm Trigger:	Motion detection, tampering alarm, network disconnect, IP address conflict, storage full, storage error
Protocols:	TCP/IP, HTTP, DHCP, DNS, DDNS, RTP, RTSP, PPPoE, SMTP, NTP, UPnP, ICMP,IGMP,SNMP, FTP, 802.1X, QoS, HTTPS
System Compatibility:	ONVIF, PSIA, CGI
General Functionalities (Security):	User authentication, watermark
Security:	User authentication, watermark, IP address filtering, anonymous access

Interface

Communication Interface:	1 RJ45 10M/100M self adaptive Ethernet port and 1 RS-485 interface
On-board Storage:	Built-in Micro SD/SDHC/SDXC card slot, up to 64 GB
Audio Input:	1 channel microphone input, 3.5mm mini-jack
Audio Output:	1 channel 3.5mm audio interface (line level, 600 Ohm)
Video Output:	1Vp-p Composite Output (75 Ohm, BNC)
Alarm Input:	1 channel
Alarm Output:	1 channel
Reset button:	Yes

General

Power Supply:	24V AC, ±10% / 12V DC, ±10% , PoE(Power Over Ethernet)
Power Consumption:	Max. 6W (max. 9W with ICR on)
Working Temperature (Operating Conditions):	-30°C ~ 60°C (-22°F ~ 140°F) humidity 95% or less (non-condensing)
Impact Protection:	IEC60068-275Eh, 50J; EN50102, exceeding IK10
Dimensions:	69.8 × 58 × 145 mm (2.68" x 2.56" x 5.70")
Weight:	830g (1.83 lbs)

15-50 mm LENS FOR 3MP WDR IP BOX CAMERA

Mount	CS
Focal Length	15 to 50 mm (3.3x)
Focus	Manual
Iris Range	F1.3 - T360 ¹
Iris	Manual
Zoom	Manual
Back Focal Distance	8.33 mm in air
Exit Pupil Position	116 mm from the image plane
Object Dimensions at M.O.D.	1/2.7"Wide: 1398 × 731 mm, Tele: 299 × 218 mm 1/3"Wide: 1080 × 625 mm, Tele: 269 × 197 mm 1/4"Wide: 625 × 417 mm, Tele: 197 × 146 mm

Object Dimensions at M.O.D. (16:9)	1/2.7"Wide: 1896 × 532 mm, Tele: 329 × 176 mm 1/3"Wide: 1358 × 466 mm, Tele: 296 × 159 mm 1/4"Wide: 718 × 327 mm, Tele: 216 × 119 mm
Angular Field of View	1/2.7"Wide: 132°51' × 100°22', Tele: 50°26' × 37°56' 1/3"Wide: 121°04' × 91°20', Tele: 45°51' × 34°28' 1/4"Wide: 91°20' × 68°43', Tele: 34°28' × 25°53'
Angular Field of View (16:9)	1/2.7"Wide: 144°17' × 82°13', Tele: 54°53' × 31°01' 1/3"Wide: 131°34' × 74°46', Tele: 49°55' × 28°11' 1/4"Wide: 99°19' × 56°19', Tele: 37°31' × 21°12'
Focusing Range	Infinity to 0.3 m
Weight	2.64 oz (75.00 g)

HOUSING FOR 3MP IP BOX CAMERA

Mount:	Outdoor Camera Housing
Feature:	Built-in Heater, Fan and Wiper Wall mount
Operation Temperature:	-40°C ~60°C(-40°F-140°F) (When the temperature is below 5°C±5°C, the heater and fan turn on automatically. When the temperature is above 40°C±5°C,the fan turns on automatically.)
Power Supply:	24VAC
Power Consumption:	Heater 50W, Fan 3W, Wiper 5W
Weather Proof:	IP66
Construction:	Aluminum alloy
Weight:	2615g(5.77lbs)
Dimensions:	138.6×146.9×460mm (5.46''×5.78'' ×18.11'')

BATTERY BACKUP

UPS for video recorder
1500VA Rating, 900 Watts, 1500 Joules
1-In 1-Out RJ45 Surge Protection
4 surge protected outlets, 4 with battery backup
AVR for line conditioning and protection against brownouts
Intelligent LCD Diagnostic Display

Rack mount UPS for Video Recorder
2U Metal Rack Mount UPS
1500VA Rating, 900 Watts, 1840 Joules,
8 x 5-15R Battery/Surge Outlets
Intelligent LCD Diagnostic Display
Automatic Voltage Regulation (AVR)

ANALOG CAMERA

Image sensor 1/3" SONY Super HAD CCD II
Signal system NTSC
Effective pixels NTSC: 976 (H) × 494 (V)
Min. illumination
Color: 0.001 Lux @F1.2, AGC ON,
0.0001 Lux @F1.2, AGC ON,
sensitivity × 512
B/W: 0.0001 Lux @F1.2, AGC ON,
0.00001 Lux @ F1.2, AGC ON,
sensitivity × 512
Shutter time NTSC: 1/60 s to 1/100,000 s
Lens mount C/CS mount
Auto iris DC/Video drive
Day & night
Horizontal resolution 700 TVL (Color)
Synchronization Internal / Power synchronization
Video output 1Vp-p composite output (75 Ω/BNC)
S/N ratio More than 62 dB
Menu
Camera ID On / Off (16 letters, position adjustable)
Auto Gain Low / Middle / High / Off
D/N Mode Auto1 / Auto2 / Day / Night
White Balance Auto trace WB1 / Auto trace WB2 / Manual / Auto Control
Private Mask On / Off, maximum 12 zones
Motion Detection Mode 1 / Mode 2 / Off
BLC Area / Value / Off
WDR 75 dB
RS-485 Address / Protocol / Baud Rate
Anti-Flicker On / Off
Language English
Function Digital Noise Reduction, Sharpness, Brightness, Saturation, Resolution,
Electronic image stabilization, Digital Zoom, Mirror, Defect Pixel Correction
Scene Indoor Standard , Indoor Backlight , Outdoor, Low illumination , Customize
General
Operating conditions -10°C ~ 60°C (14°F ~ 140°F)
Humidity 90% or less (non-condensing)

Power supply 24 V AC \pm 10%, 12 V DC \pm 10%

Power consumption Max. 5 W

Dimensions 69 x 56 x 113.3 mm

(2.72"

Lens

f=5~50mm, F1.4, DC Auto Iris, CS Mount

Power Supply

MG ELECTRONICS MGT2450 TRANSFORMER 24VAC

MG Electronics' MGT2450 is a 24 VAC 50 VA Power Supply, Plug In Transformer.

Fixed Housing

Open Type : Side open

Cable Entry : Nylon gland

Operating Temperature Set : -35°C ~ +50°C (-31°F ~ +122°)

Operating Temperature Heater : 4°C \pm 3°C on

Operating Temperature Blower : +45°C ~ +5°C on

Defroster : N/A

Housing Operating Humidity : -20% ~ 49% RH

Housing Materials : Aluminium

Ingress Protection : IP66

Housing Dimensions WxHxD External : 148.0 x 107.0 x 421.0mm (5.83" x 4.21" x 16.57")

Housing Dimensions WxHxD Internal : 84.0 x 69.0 x 319.0mm (3.31" x 2.72" x 12.56")

Housing Weight : 1.1Kg (2.3 lb)

Housing Colour : Ivory

Applicable model Fixed Housing

Fixed Housing Model 1 : Box Cameras (Network/Analogue)

PTZ Housing

Operating Temperature : -35°C - +50°C

Operating Humidity : -20% - 49% RH

Materials Body : Aluminum

Dimensions WxHxD External : 148 x 107 x 421mm

Dimensions WxHxD Internal : 84 x 69 x 319mm

Weight : 1.1Kg

Input Voltage : 24V AC

Housing Colour : Ivory

SCOPE OF WORK

Work included in this section shall consist of furnishing all labor, tools, equipment supplies, transportation, sub-contract labor, equipment, training, materials, and 1-year complete warranty necessary to install in place all VIDEO SYSTEM UPGRADE equipment as indicated in these specifications.

Location of work
HILLCREST ELEMENTARY SCHOOL
605 South main St.
Troy, Tennessee

The successful Bidder shall provide all equipment is required to install a video system upgrade. Other brands of equipment will be considered but must be equal to the components currently being used or specified by the School system.

It is the intention of the School system to have the existing 16 channel analog converted into digital format and allow for the addition of four (4) additional indoor digital cameras. System being bid must have the capability of monitoring, and storing video from 32 sources. All equipment is to be used “in house” while allowing access from a remote location.

Location of work:
LAKE ROAD ELEMENTARY SCHOOL
1130 E Highway 22
Union City, Tennessee

The successful bidder shall provide all equipment required to install an analog video camera to monitor the fuel storage system at Lake Road Elementary School. Camera is to be monitored by the existing 32 camera system in place at Lake Road School.

Location of work
RIDGEMONT ELEMENTARY SCHOOL
1285 N Highway 45W
Union City, Tennessee

The successful Bidder shall provide all equipment is required to install a video system upgrade. Other brands of equipment will be considered but must be equal to the components currently being used or specified by the School system.

It is the intention of the School system to have the existing 16 channel analog converted into digital format and allow for the addition of three (3) additional indoor digital cameras and one (1) additional outdoor camera. System being bid must have the capability of monitoring, and storing video from 32 sources. All equipment is to be used “in house” while allowing access from a remote location.

The Obion County Schools will provide all Patch Panels and switches for the IP network camera system. Obion County will setup a separate network or Vlan existing network to accomidate IP network camera system.

The Obion County School system will be purchasing network IP components throughout the year of this bid. We will be gradually replacing our existing cameras with network IP cameras as funds become available. **Prices must be guaranteed for a period of one year.**

Bidder is requested to visit each school site and be familiar with facilities before bidding on this project. Bidder is required to deliver, setup, install and provide a minimum of 4 hours training on each network video system that has been installed.

Any questions and/or clarifications may be addressed to or to schedule a site visit

Please contact:

Phil Graham

Maintenance Supervisor

Obion County Board of Education

Phone (731) 536-4226 or 731.446.2139

grahamp@k12tn.net

Bid Form

Date:

To: Obion County Board of Education
1700 N. Fifth St.
Union City, Tennessee 38261

From: (Name of Bidder)
(Address of Bidder)
(City, State, and Zip code)
(Phone and fax numbers)

For: Video system upgrades Obion County Schools
Obion County Board of Education
Union City, Tennessee

The undersigned, as Bidder, hereby declares that the only person, or persons, interested in the Bid as principal or principals, is or are, named herein and that no other person than herein mentioned has any interest in this Bid or in the contract to be entered into; that this Bid is made without connection with any other person, company or parties, making a bid, and it is in all respects fair and in good faith without collusion or fraud.

The Bidder further declares that he has examined the site of the work and informed himself fully in regard to all conditions pertaining to the places where the work is to be done, that he has examined the drawings and the project manual for the work and the Bidding Documents relative to the Work to be performed and that this bid is based upon thereon, without exception.

The Bidder proposes and agrees, if this Bid is accepted, to contract with the Owner in the form of contract AIA Document A101, Published by the American Institute of Architects for Contractor and Owner, furnishing thereby all services, labor, and materials to complete the construction of the project in full and complete accordance with the noted, described, and reasonably intended requirements of the Contract Documents.

The Undersigned hereby affirms and states that the prices quoted herein constitute the gross total cost for the work involved in the respective items and that this cost also includes taxes, insurance, royalties, transportation charges, use of tools and equipment, superintendents, overhead, profits and other work, services, and conditions necessarily involved in the work done and the materials furnished, in accordance with the requirements of the contract.

The Bidder agrees that his bid may not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

Bids shall be filled in by typewriter or manually in ink.

Acknowledge receipt of the following Addenda to the Contract Documents

Addendum #1 _____ date _____

The bids shall be submitted in **duplicate**. All bids shall be enclosed in a sealed envelope. The envelope shall be addressed to the owner, and identified with the words **“BID ENCLOSED, VIDEO SYSTEM UPGRADES, Obion County Board of Education”** plainly written on the face thereof.
Bids must be submitted by Oct. 1, at 11 am.

Bidder further certifies that: (One must be checked)

___ All specifications are met as prescribed herein.

___ Alternate items and specs are attached and described as required herein.

HILLCREST ELEMENTARY

The bidder agrees to perform all of the work described in the bidding documents for a lump sum price of:

_____ dollars.
(written amount)
\$ _____
(numerical amount)

LAKE ROAD ELEMENTARY

The bidder agrees to perform all of the work described in the bidding documents for a lump sum price of:

_____ dollars.
(written amount)
\$ _____
(numerical amount)

RIDGEMONT ELEMENTARY

The bidder agrees to perform all of the work described in the bidding documents for a lump sum price of:

_____ dollars.
(written amount)
\$ _____
(numerical amount)

REQUESTED ALTERNATES

Requested Alternate #1: Add \$ _____
(description of alternate) Annual fee for Maintenance support and technical advise per year (5 year term)

VOLUNTARY ALTERNATE

Voluntary Alternate #1 Add \$ _____ Deduct \$ _____
(description of alternate)

The Bidder acknowledges by his signature below that the Owner reserves the right to reject any and/or all bids, especially any bids that appear to be irregular in nature or inconsistent in content. The bidder further acknowledges that the Owner has the right to evaluate bids and to accept any bid or bids which, in his opinion, may be in His best interest.

By: _____
(signature)

Title: _____

Date: _____

Firm Name:

State of Incorporation

Contractors' License No.:
CCTV License No.
Tennessee ORI No.

Expiration Date:

Individual component pricing

Network video recorder (include delivery, setup, installation and 4-hrs. training.

1 or more - 32 channel network video recorder with 16 TB hard drive

Installed price \$_____.

1 or more - 32 channel network video recorder with 24 TB hard drive

Installed price \$_____.

1 or more - 32 channel network video recorder with 32 TB hard drive

Installed price \$_____.

1 or more – Video Management Software

Installed price \$_____.

1 or more – Video Management Camera License

Installed price \$_____.

1 or more – 16 – channel Encoder

Installed price \$_____.

1 or more 3MP IR Vandal Proof Dome Camera

Installed price \$_____.

1 or more Wall Mount Bracket for Dome Camera

Installed price \$_____.

1 or more 3MP IR Vandal Proof Bullet Camera

Installed price \$_____.

1 or more 3MP WDR IP Box Camera without Lens

Installed price \$_____.

1 or more 15-50mm Lens for 3MP IP Box Camera

Installed price \$_____.

1 or more Environment Housing for 3MP IP Box Camera

Installed price \$_____.

1 or more Cat. 6 Riser network drop

Installed price \$_____.

1 or more Cat. 6 Plenum network drop

Installed price \$_____.

1 or more UPS for Video Recorder
Installed price \$_____.

1 or more Rack Mount UPS for Video recorder
Installed price \$_____.

ACCESSORIES

1 or more 22" LED Monitor and Cable for NVR
Installed price \$_____.

1 or more 50" LED Remote Monitor with VGA and HDMI
Installed price \$_____.

1 or more TV Wall Mount for LED Monitor
Up to 88 lb VESA 400X400mm with Full Motion
Swivel Articulating Arm.
Installed price \$_____.

1 or more 75ft. HDMI cable with extender
Installed price \$_____.

1 or more Analog Camera with 5-50mm lens
Installed price \$_____.

1 or more Analog Camera Cabling
Installed price \$_____.