



500 West Big Beaver  
Troy, MI 48084  
troymi.gov

## CITY COUNCIL AGENDA ITEM



Date: 11/15/2023

To: Mark F. Miller, City Manager

From: Robert J. Bruner, Deputy City Manager  
Megan E. Schubert, Assistant City Manager  
Rob Maleszyk, Chief Financial Officer  
Dee Ann Irby, Controller  
Alex Bellak, IT Director  
Frank Nastasi, Police Chief  
Andrew Satterfield, Police Captain  
David Quaiatto, Police Lieutenant  
David Druyor, Police IT Manager  
Matthew Heasley, Police IT Security Specialist  
Emily Frontera, Purchasing Manager

Subject: Standard Purchasing Resolution 4: State of Michigan MiDEAL Purchasing Cooperative - A/V Switches and Components Replacement, Troy Police Department

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### **History**

The Troy Emergency Operations Center (EOC), the Troy Police and Fire Training Center (Backup EOC), and the Police Roll Call room are three facilities that are crucial and multifunctional for the Police Department as well as the entire city operations as described as follows:

- 1) The EOC is located on the second floor at the north end of the Troy Police Department. This is a common meeting and media room for department heads and emergency response teams in the case of a city-wide catastrophe. It's also used for major event planning, holding press conferences, conducting training, and a general conference room.
- 2) The Police and Fire Training Center is a separate building within the Troy city limits at 4850 John R Road. This building has several classrooms that host internal and external training sessions for police, fire, and other municipal seminars. The Training Center is also designated as the backup EOC, in the event that the Police Department EOC is unavailable, or if a larger capacity venue is needed.
- 3) The Police Roll Call room is located in the center of the Troy Police Department. This room is where Patrol Officers begins their shifts. This is where Officers receive any new information and discuss current trends before going into service for their patrol shifts. This room is vital for providing accurate and potentially life-saving information.



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### **History (continued)**

All three of these facilities have their own sets of audio and video equipment which include video projectors, display screens, audio speakers, microphones, and input/output devices allowing for ease of use during presentations. The projectors, screens and lecterns were replaced in June 2022. However, a majority of the component equipment has not been replaced since 2015 and as is due to be replaced due to functionality and age. All rooms will be updated with new touch screen interfaces, microphone systems, conferencing cameras, HDMI switchers, and network switches. The roll call room will receive a new laser projector and display screen. The current equipment in place does not support current standards of media display and support. Replacing this equipment will ensure that future presentations and classes will be more professional and will expand the footprint of what is currently possible. Additionally, updating this equipment will connect the three rooms and allow for distance or remote learning opportunities should we exceed the capacity of any of the facilities.

This audio/video project is expected to be completed by March 2024.

### **Purchasing**

- Pricing for the audio and video equipment and labor has been secured by *Smart Homes, Inc. of Mason, MI* per State of Michigan MiDEAL Purchasing Contract #190000001422 for an estimated cost of \$67,383 as detailed in the attached quote #QUOQ16792.
- City Council authorized participation in the Cooperative Purchasing Programs on November 14, 2022 (Resolution #2022-11-157).

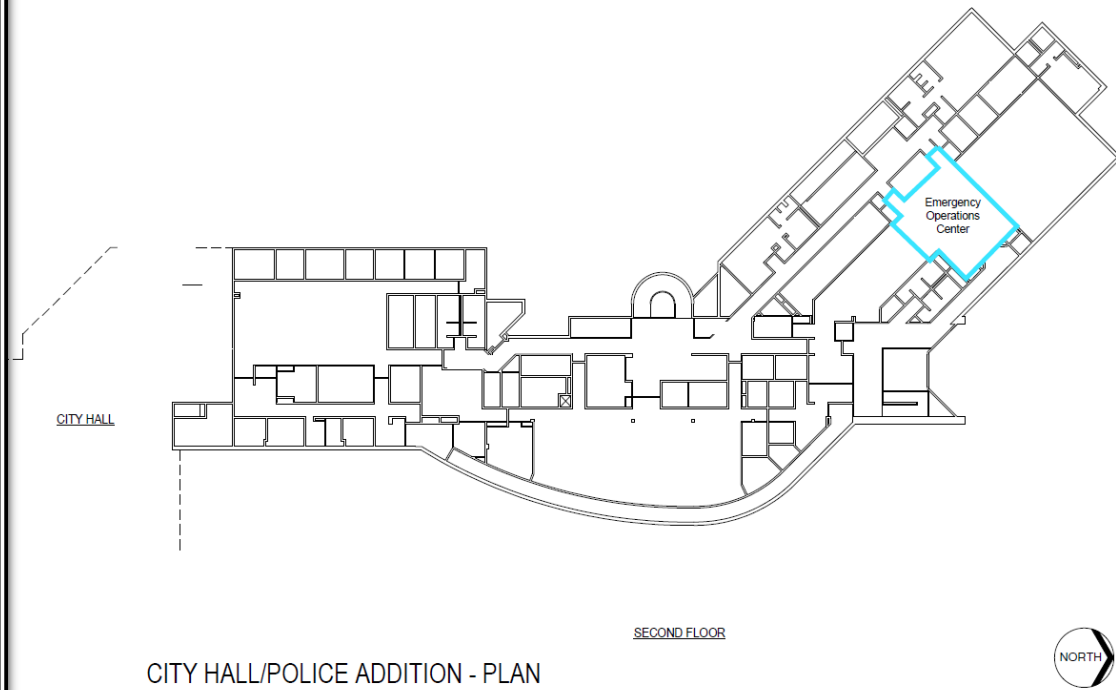
### **Financial**

Funds are budgeted and available in the Capital Fund for General Police Equipment under Project Number 2024C0009 for the 2024 fiscal year with a total available budget of \$70,000. The expenditures will be charged to Account Number 401.301.11.305.978.010.

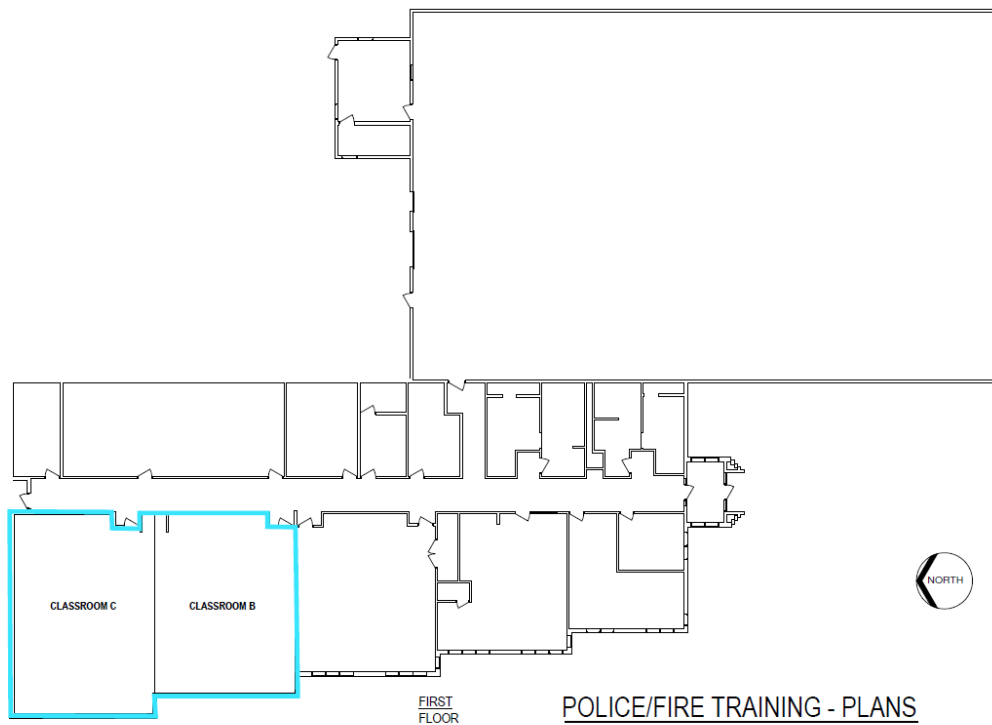
### **Recommendation**

City Management recommends, in the best interest of the City, waiving the bid process and awarding a contract for A/V Switches and Components Replacement and Remote Learning Center to *Smart Homes, Inc. of Mason, MI* for an estimated cost of \$67,383 with a \$2,600 contingency as detailed in the attached quote as per the State of Michigan MiDEAL Purchasing Contract #190000001422; not to exceed budgetary limitations.

**(1) Audio Video Upgrade Location - Troy Police Department 2nd Floor Emergency Operations Center**



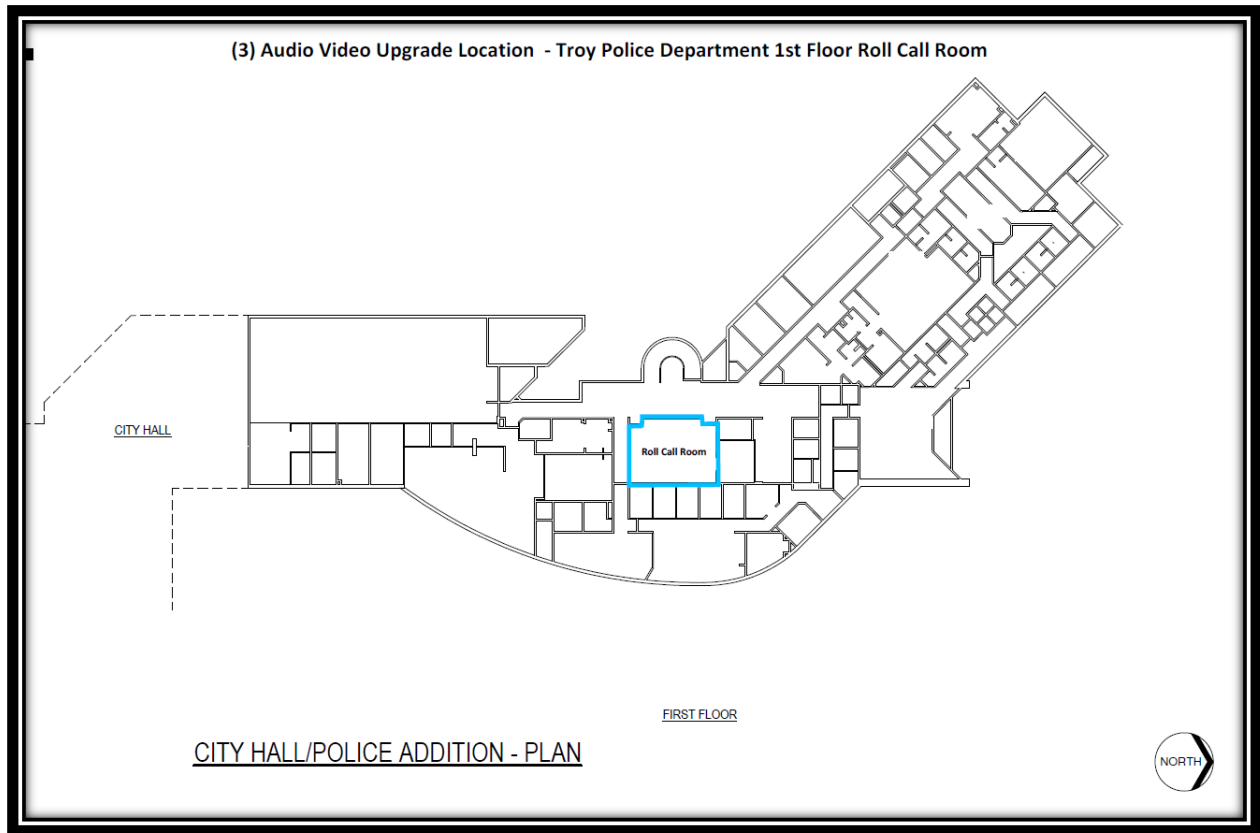
**(2) Audio Video Upgrade Location - Fire and Police Training Center Classroom B and C**





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## CITY COUNCIL AGENDA ITEM





SMART  HOMES  
SMART  OFFICES

9/7/2023

## City of Troy Police Dept - Training Room AV Updates

[smartofficesandsmarthomes.com](http://smartofficesandsmarthomes.com)

**Sold To:**

**City of Troy**  
 500 West Big Beaver Road  
 Troy, MI 48084

**Ship To:**

**City of Troy**  
 500 West Big Beaver Road  
 Troy, MI 48084

## Training Room AV Updates

Proposal for Smart Homes / Smart Offices (SHSO) to provide audiovisual (AV) installation for the City of Troy, Michigan. Complete system engineering, installation, setup, testing, and client training. All necessary work to be performed by SHSO unless noted below.

Terms, conditions, and pricing per state contract 190000001422 DTMB - Conference & Training Room Audio Visual Equipment.

State of Michigan MiDEAL - This proposal includes State of Michigan contract pricing for conference room/training room audio visual equipment and installation.

This proposal is valid for 60 days.

Contact - Matt Heasley, w 248-619-7619, c 248-497-8791, matthew.heasley@troymi.gov

Work Site - Police Department, 500 West Big Beaver Road, Troy, 48084

Proposed - Audiovisual updates in multiple meeting rooms. Aging equipment will be replaced with new components. Select devices will be reused.

EOC

The projection system will be reused.

A wall mounted television display will be reused.

AV resources will remain in place in the lectern - Windows PC, Barco Clickshare, HDMI Connection for Laptop, Television Tuner. The DVD/VCR combo unit will be removed.

A new 4x4 HDMI switcher will be installed for source selection and routing to the display devices.

The gooseneck microphone at the lectern will be replaced with a similar model.

Installation and setup of a wireless lapel (clip-on) microphone.

Installation of a new audio processor and amplifier. Speakers will be reused.

Installation of a new Crestron AV control system to include an RMC processor and TS-770 tabletop touch panel. A zero-training user interface will be developed for the touch panel to guide users through room startup and operation.

Installation of a pan/tilt/zoom high-definition streaming camera. Installation of a live media streaming encoder. Video and audio from the system will connect to the streaming encoder allowing Internet delivery of the live action from the room. The encoder may be turned on/off from the AV touch panel. The streaming encoder will push a live stream to the Internet, to a streaming service provider capable of multi-cast. The cost for online streaming services is not included in this proposal. SHSO will assist with selection and setup of a suitable streaming service.

All equipment will be housed in the existing lectern.

## ROLL CALL

Installation of a new laser video projector and wall mounted electric projection screen. The existing ceiling recessed projection screen will need to be inspected and considered for refurbishment with a new roller and motor.

A wall mounted television display (rear) will be reused.

AV resources will remain in place in the lectern - Windows PC, Barco Clickshare, HDMI Connection for Laptop, Television Tuner. The DVD/VCR combo unit will be removed.

A new 4x4 HDMI switcher will be installed for source selection and routing to the display devices.

Installation and setup of a wireless lapel (clip-on) microphone.

Installation of a new audio processor, amplifier, and speakers.

Installation of a new Crestron AV control system to include an RMC processor and TS-770 tabletop touch panel. A zero-training user interface will be developed for the touch panel to guide users through room startup and operation.

All equipment will be housed in the existing equipment rack.

## TRAINING B & C

The B & C training rooms will be setup for independent or combined operation. The AV control system will automatically configure the equipment based on the status of the partition wall. A wall sensor will be used to monitor the status of the wall. When the rooms are combined, B will be the primary room and C will be inactive. B resources (PC, Barco, HDMI, camera) should be used for presentations/conferencing/streaming when combined. The active resource will be routed to both projectors and rear monitors when combined.

Projection systems in both rooms will be reused.

A wall mounted television display (rear) will be reused.

AV resources will remain in place in the lectern - Windows PC, Barco Clickshare, HDMI Connection for Laptop, Television Tuner.

A new 4x4 HDMI switcher will be installed in each room for source selection and routing to the display devices.

The gooseneck microphones at the lectern will be reused.

Installation and setup of a wireless lapel (clip-on) microphone.

Installation of a new audio processor and amplifier. Speakers will be reused.

Installation of a new Crestron AV control system to include an RMC processor and TS-770 tabletop touch panel at each lectern. A zero-training user interface will be developed for the touch panel to guide users through room startup and operation.

Installation of a pan/tilt/zoom high-definition streaming camera in each room. The cameras will be connected to the room PCs for online conferencing with services such as Teams or Zoom. Each room will be capable of independent use for online conferencing when the partition wall is shut and the rooms are in individual mode.

Installation of a live media streaming encoder in room B. Video and audio from the system will connect to the streaming encoder allowing Internet delivery of the live action from the room. The encoder may be turned on/off from the AV touch panel. The streaming encoder will push a live stream to the Internet, to a streaming service provider capable of multi-cast. The cost for online streaming services is not included in this proposal. SHSO will assist with selection and setup of a suitable streaming service.

The streaming capability is unique to room B and may be used with independent or combined operation.

All equipment will be housed in the existing lectern.

Confidentiality Statement - This proposal includes a custom engineered solution provided by SHSO. All design and

component selections are proprietary and confidential SHSO. This proposal may not be shared without our express written consent.

**I have read and agree to the Scope of Work above**

**Signature:** \_\_\_\_\_



Qty	Description	Unit Price	MSRP	Total
<b>EOC</b>				
1	Key Digital 4x4 HDMI Matrix Switcher with Audio Breakout	\$1,160.00	\$1,899.99	\$1,160.00
2	HDMI Fiber Hybrid - 75 Foot - 4K 18Gbs - CMP	\$147.04	\$219.99	\$294.08
1	HDMI Fiber Hybrid - 50 Foot - 4K 18Gbs - CMP	\$119.89	\$189.99	\$119.89
1	Gooseneck Microphone	\$267.19	\$285.00	\$267.19
1	TableTop Microphone Shock-Mount Plate, XLRf-Type	\$47.50	\$59.00	\$47.50
1	Shure SLXD Wireless Microphone System with Beltpack Transmitter and Clip-On, Lapel Microphone (cardioid) - G58	\$747.53	\$969.00	\$747.53
1	Shure Dual Docking/Charging Station for SLXD Wireless Transmitters	\$141.24	\$159.00	\$141.24
1	Shure Lithium-Ion Rechargeable Battery for SLXD Transmitters	\$51.40	\$56.00	\$51.40
1	Biamp Tesira Forte AVB VT4 Audio Processor	\$2,132.50	\$3,412.00	\$2,132.50
1	Biamp Single Channel Class D Amplifier - Low Z and High Z Outputs - 120WPC - 1RU	\$385.00	\$616.00	\$385.00
1	Touch Screen Interface - 7" Touchscreen - Tabletop Version - Black	\$1,581.25	\$2,530.00	\$1,581.25
1	Crestron RMC4 Room Media Controller - Series 4 Processor - One RS-232 Port, 2 IR, 2 Relay, 2 I/O	\$687.50	\$1,100.00	\$687.50
1	LAN - RS-233 Control Interface	\$255.00	\$408.00	\$255.00
1	PTZ Conferencing Camera - 10X Optical Zoom - HDMI Output - 1080p - PoE - Gray	\$725.00	\$750.00	\$725.00
1	Wall mount for PTZ Camera - Black	\$37.49	\$59.98	\$37.49
1	USB Capture Interface - HDMI 1080p	\$280.00	\$299.99	\$280.00
1	HDMI Streaming Interface - HDMI In/Loop Out - Mic Audio In, Headphone Out	\$421.25	\$449.00	\$421.25
1	Network Switch - 8 Port - Gigabit - 8 Ports PoE+ 126W - Rack Mounting 1RU	\$134.69	\$169.99	\$134.69
1	Bulk Cabling, AV Interconnect, Control Interconnect	\$221.00	\$249.00	\$221.00
1	Rack Hardware, Blanks, Wire Management	\$277.00	\$299.00	\$277.00
<b>SubTotal</b>				\$9,966.51
<b>ROLL CALL</b>				
1	NEC P547 Laser Video Projector - WUXGA, 5400 Lumens - LAN, RS-232, HDBase-T Connections	\$3,165.75	\$4,499.00	\$3,165.75
1	DaLite Tensioned Contour Electrol HD Projection Screen - 130" (69" x 110") - HD1.1 Surface - White Wall Mount Case - CUSTOM 2" Black Drop	\$3,651.25	\$4,869.00	\$3,651.25

Qty	Description	Unit Price	MSRP	Total
1	Key Digital 4x4 HDMI Matrix Switcher with Audio Breakout	\$1,160.00	\$1,899.99	\$1,160.00
1	HDMI Fiber Hybrid - 75 Foot - 4K 18Gbs - CMP	\$147.04	\$219.99	\$147.04
1	HDMI Fiber Hybrid - 50 Foot - 4K 18Gbs - CMP	\$119.89	\$189.99	\$119.89
1	Shure SLXD Wireless Microphone System with Beltpack Transmitter and Clip-On, Lapel Microphone (cardioid) - G58	\$747.53	\$969.00	\$747.53
1	Shure Dual Docking/Charging Station for SLXD Wireless Transmitters	\$141.24	\$159.00	\$141.24
1	Shure Lithium-Ion Rechargeable Battery for SLXD Transmitters	\$51.40	\$56.00	\$51.40
1	Biamp Tesira Forte AVB VT4 Audio Processor	\$2,132.50	\$3,412.00	\$2,132.50
1	Biamp Single Channel Class D Amplifier - Low Z and High Z Outputs - 120WPC - 1RU	\$385.00	\$616.00	\$385.00
5	In-Ceiling Speaker - 4" Treated Fiber Cone Driver and .75" Silk Dome Tweeter - 16 Ohm or 70 Tap Selectable Operation - 20W Power Capacity - White	\$98.31	\$131.05	\$491.55
1	Touch Screen Interface - 7" Touchscreen - Tabletop Version - Black	\$1,581.25	\$2,530.00	\$1,581.25
1	Crestron RMC4 Room Media Controller - Series 4 Processor - One RS-232 Port, 2 IR, 2 Relay, 2 I/O	\$687.50	\$1,100.00	\$687.50
1	LAN - RS-233 Control Interface	\$255.00	\$408.00	\$255.00
1	Network Switch - 8 Port - Gigabit - 8 Ports PoE+ 126W - Rack Mounting 1RU	\$134.69	\$169.99	\$134.69
1	Bulk Cabling, AV Interconnect, Control Interconnect	\$221.00	\$249.00	\$221.00
1	Rack Hardware, Blanks, Wire Management	\$277.00	\$299.00	\$277.00
<b>SubTotal</b>				\$15,349.59

### TRAINING B & C

2	Key Digital 4x4 HDMI Matrix Switcher with Audio Breakout	\$1,160.00	\$1,899.99	\$2,320.00
4	HDMI Fiber Hybrid - 100 Foot - 4K 18Gbs - CMP	\$190.58	\$249.99	\$762.32
3	HDMI Fiber Hybrid - 75 Foot - 4K 18Gbs - CMP	\$147.04	\$219.99	\$441.12
2	Shure SLXD Wireless Microphone System with Beltpack Transmitter and Clip-On, Lapel Microphone (cardioid) - G58	\$747.53	\$969.00	\$1,495.06
2	Shure Dual Docking/Charging Station for SLXD Wireless Transmitters	\$141.24	\$159.00	\$282.48
2	Shure Lithium-Ion Rechargeable Battery for SLXD Transmitters	\$51.40	\$56.00	\$102.80
2	Biamp Tesira Forte AVB VT4 Audio Processor	\$2,132.50	\$3,412.00	\$4,265.00
2	Biamp Single Channel Class D Amplifier - Low Z and High Z Outputs - 120WPC - 1RU	\$385.00	\$616.00	\$770.00

Qty	Description	Unit Price	MSRP	Total
2	Touch Screen Interface - 7" Touchscreen - Tabletop Version - Black	\$1,581.25	\$2,530.00	\$3,162.50
1	Crestron RMC4 Room Media Controller - Series 4 Processor - One RS-232 Port, 2 IR, 2 Relay, 2 I/O	\$687.50	\$1,100.00	\$687.50
2	LAN - RS-233 Control Interface	\$255.00	\$408.00	\$510.00
1	Decora Wall Plate - 1 Gang	\$3.78	\$3.78	\$3.78
1	Surface-Mount 1G Electrical Box	\$10.60	\$12.99	\$10.60
1	Surface-Mount Wall Partition Sensor - Cresnet Interface - Mounts in Single Gang Box, Decora Style, White	\$575.90	\$886.00	\$575.90
1	PTZ Conferencing Camera - 10X Optical Zoom - HDMI Output - 1080p - PoE - Gray	\$725.00	\$750.00	\$725.00
1	PTZ Conferencing Camera - 10X Optical Zoom - USB 2.0 - 1080p - Gray	\$625.00	\$650.00	\$625.00
2	Wall mount for PTZ Camera - Black	\$37.49	\$59.98	\$74.98
1	USB Cable - Extension - Active A Female to A Male - 75 Feet - CMP	\$137.05	\$169.99	\$137.05
1	USB Capture Interface - HDMI 1080p	\$280.00	\$299.99	\$280.00
1	HDMI Streaming Interface - HDMI In/Loop Out - Mic Audio In, Headphone Out	\$421.25	\$449.00	\$421.25
2	Network Switch - 8 Port - Gigabit - 8 Ports PoE+ 126W - Rack Mounting 1RU	\$134.69	\$169.99	\$269.38
2	Bulk Cabling, AV Interconnect, Control Interconnect	\$221.00	\$249.00	\$442.00
2	Rack Hardware, Blanks, Wire Management	\$277.00	\$299.00	\$554.00
SubTotal				\$18,917.72
Labor				
1	Installation, Programming, Testing, Training	\$22,230.00	\$30,894.00	\$22,230.00
SubTotal				\$22,230.00
A service charge of 1.5% per month or 18% annually will be applied to any unpaid balance on past due accounts.		MSRP	\$95,233.73	
		Discount	\$28,769.91	
		SubTotal	\$66,463.82	
		Tax	\$0.00	
		Shipping	\$919.00	
		Total	\$67,382.82	