

City of Schertz

Council Chambers
Audio Visual System Refresh

INCLUDES POST BID CHANGES



TROX

Igniting Curiosity

Company Profile Our track record tells the story. Since 1995, Summit Integration Systems / TROX has expanded from a single sales representative into one of the world's largest dealers of presentation technology. With offices across Texas and Louisiana, Summit Integration Systems has emerged as the preferred supplier of AV presentation systems to the corporate and educational markets. You can expect a presentation system that's tailored to your unique application and requirements. We listen and take the time for a detailed analysis that will match equipment and systems to meet your specifications. The dynamic partnerships we enjoy within the A/V equipment industry allow us to support today's finest equipment in every imaginable environment. Summit Integration Systems designs, programs, builds, installs, and services each system - from the simplest solution to the most sophisticated multimedia and video conferencing integration.



Quality and Service Your Business Can Count On

Our success is built on understanding the importance of a good presentation system. Over the years Summit Integration Systems / TROX has completed many auditorium installations, instructor stations, message communication, and distance learning solutions - at a cost-effective and rock-solid design for every need.

Our wide array of services and solutions include:

- **Integration** – Our expertise lies in planning, designing and integrating facilities such as auditoriums, multimedia classrooms, training centers, higher education college facilities, digital signage systems, master control centers and more. Our staff interfaces throughout your project with architects, facilities managers, IT staff, and AV management personnel.



- **Customized Systems** – With Summit Integration Systems / TROX, you can expect a presentation system that's tailored to your specifications. We design, program, build, install, and service each system.

- **Authorized Service** – We have a dedicated sales force that is trained for rapid turn-around on repairs. Our factory-trained and certified technicians are available 24/7 for onsite service needs.

- **Maintenance Agreements** – Whenever possible, we negotiate extended warranties and scheduled maintenance agreements to help you protect your new AV systems.

Feb 22, 2022

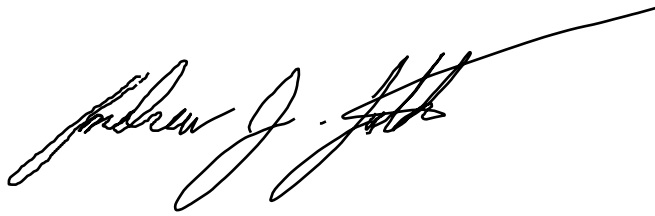
City of Schertz
Julie Gohlke
1400 Schertz Pkwy, Bldg # 2
Schertz, TX 78154
(210) 619-1163

Ms. Gohlke,

Thank you for allowing Trox the opportunity to prepare this proposal for the upgrade of audio / visual systems in the council chambers. Our proposal covers the AV system work as discussed on site and as described in the city issued RFP.

Please review our proposal scope of work based on our recommendations for the spaces and feel free to contact me directly should you have any questions. Thank you and I look forward to hearing from you!

Respectfully Yours,

A handwritten signature in black ink, appearing to read "Andrew J. Luther", with a long horizontal line extending to the right.

Andrew Luther
Account Representative
Trox
17361 Bell North Drive, Suite 105
Schertz, TX 78154
andrew.luther@trox.com
210-530-0531 x6313

Proposal Scope of Work

The primary reason for the development of this project proposal scope of work is to ensure that Trox is proposing the level of functionality that the City of Schertz requires for the refresh of audio visual equipment in their council chambers and executive room based on the below stated and customer provided statement of work.

The City of Schertz, Texas requires an upgrade to the current audio/visual (A/V) system in the council chambers. The current system was installed around 2002 and is starting to fail.

Current System Configuration

The current system is configured into four areas: the A/V booth, main chamber area, conference room and lobby.

- The A/V booth contains:
 - Two Marshall production monitors (2-view and 8-view)
 - Panasonic AG-MX70 mixer
 - Crestron main control panel
 - Two 15in Dell monitors
 - Server rack with:
 - Two Sony DVD/VHS recorder/players
 - Magnavox HDD/DVD recorder (MDR513H)
 - Crestron professional media processor (MP2E)
 - Crestron audio/visual control processor (AV2)
 - Crown professional amplifier (CTs600)
 - Two Tesira Biamps
 - Extron video scan converter VSC 500
 - Extron composite video and stereo audio distribution amplifier (AVDA 6 MX)
 - Analog Way OctoValue universal Hi-Res scaler switcher mixer
 - Marantz Solid state recorder (PMD661 MKII)
- The main chamber area contains:
 - Panasonic laser projector
 - Five Sony EVI-D70 composite PTZ cameras
 - Fourteen Dell 15in monitors
 - Crestron panel
 - Extron VGA and stereo audio switcher (SW VGA Ars)
 - Wolfvision Visualizer (VZ-8Plus)
- The conference room contains:
 - Creston Panel
 - Panasonic LCD projector
 - Ceiling speakers
 - Extron VGA and stereo audio switcher (SW2 VGA Ars)
- The lobby area contains:
 - Several ceiling speakers (controlled by the Crestron main control panel in the A/V booth)

- Wall-mounted TV

- **Design Services Specifications**

This design upgrade will require the following minimum specifications:

- The flexibility to be operated by users with a wide range of expertise to include a Basic User needing push-button recording and uploading to a streaming service, and a Power User needing more sophisticated editing and production tools. **As best practice we work with the City to develop a control panel layout that fits your needs, typically with a simplified front user page and more sophisticated administrator page included behind a password.**
- Production switcher with joystick PTZ camera controls, recording features and expanded video monitoring via a 2x2 flat panel confidence monitor array. **This will be accomplished via the Vaddio AV MatrixMIX Production System and a 55" monitor with 2x2 video wall processor rather than a 2x2 monitor array. This will provide a cleaner, bezel free image and options for layouts that wouldn't be available in a traditional 2x2 array.**
- Upgrading the current 5 analog cameras to digital PTZ cameras. **Included**
- Relocating 3 of the current cameras and installing 3 new cameras, making the total number of cameras to 8. **Included**
- Seamless integration of camera and content video, with a professionally produced output that is recorded, archivable, and unloadable to public streaming providers or a dedicated YouTube channel for public viewing. **Included with the production switcher.**
- Recorded video streams to be uploaded to City archiving systems over City network. **Included**
- Capabilities to stream live video to Public Access TV. **Stream can be sent to any service / provider the city would like. We will coordinate require formats with the city upon contract award.**
- Replace existing 15" Dell monitors sitting in the dais, side table cut-outs and on podium, over existing OFE VGA distribution. Replacement monitors should be 22" wide screen models. Screens will be recessed into the horizontal surface so that the top of the monitor is at the same level as the front facing vertical wall. **Included**
- Dais will require removal and rebuilding of horizontal surface to accommodate larger screens and individual sound controls. Vertical wall surface is to be left intact. **Included**
- Dais stations must include individual USB charging ports. **Included**
- Dais horizontal surface supports must be designed to prevent contact with a person's knees when sitting at the dais. **Included and will be coordinated with city personnel before work begins.**

- Replacement horizontal surface must match as closely as possible the color scheme currently in place. **Included and will be coordinated with city personnel before work begins.**
- Dais stations to be reduced from 13 to 11, evenly spaced between the inner walls on either side. **Included and will be coordinated with city personnel before work begins.**
- Must allow for the control booth operator to professionally manage the video feed to the recording/distribution system with professional features such as fast-input switching, picture-in-picture/side-by-side layouts, key graphics and backgrounds, scene fades/swipes, as well as management of video quality. **Accomplished via the production switcher.**
- Require the integration of online meetings to our recording/display and distribution system. **Included via the AV bridging capabilities.**
- Contractor will install four (4) high-definition AXIS POE IP cameras at each corner of the council chambers and connect via CAT 6 cabling back to a data rack. Note that the workspace behind the dais wall has connectivity back to the main control room. **Included**
- During meetings, if someone joins the meeting virtually, would like to have the meeting displayed on 5 separate TVs (two 100" at front of council chambers, two 86" TVs at rear and an 86" TV in conference room) and the meeting participants to be able to see everything the confidence recorder camera is displaying via PiP mode. We use GoToMeeting and Microsoft Teams. **Included**
- Our Conference room has a projector and screen currently installed. Require the projector be removed and the screen replaced with an 86" TV that will be connected to the Crestron system to either display from the computer, in the conference room, or from the main council chambers. Contractor will be responsible for installing necessary electrical connections and wall mounts. **Included**
 - **PER POST BID REQUEST – Include custom labeled single gang button panels to allow each council member with the ability to vote yes / no, abstain, and request to speak. Voting will be interfaced with the city's existing software and request to speak button will alert the mayor.**

• **Sound System Improvements**

- The internal sound system requires enhancements so that audience members can hear the proceedings anywhere in the building. The goal is to provide speakers, sound deadening and other industry standard methods to overcome background noise from the air conditioning system. Bidders are encouraged to perform on-site inspections and tests at their own expense to determine the best approach. The City IT Dept. will coordinate on-site visits as needed. **Based on our observations and calculations Trox is proposing a 12" center PS speaker with 8" side delay speakers to provide sound reinforcement throughout the entire space of the main chambers. We also included absorptive ceiling clouds to dampen the acoustics of the room.**

- The audio system should provide at least 5 wireless handheld audio receivers with headphones that can be issued to users with hearing impairment during meetings. **Included**
- All meeting participants will have the option of using issued personal lavalier-type wireless microphones in addition to the table-mounted microphones. Bidders will provide sufficient wireless microphone coverage to allow a participant to move freely about the room. **Included 6 per addenda 1.**
- Meeting participants on the dais or at the two side stations will have locally-controlled-volume speakers with the option to use headphones to enhance their ability to listen to proceedings. Request to use the TAIDEN HCS-48U7 Series system or equivalent. **Rather than the stand-alone Taiden system we are using speakers and volume control that can integrate more efficiently into the head end system components while still giving the desired functionality to each participant.**
- The currently installed gooseneck microphones on the dais and two side stations will need upgrading to the Shure MXA310 series or equivalent microphones. Request to use the TAIDEN HCS-R8U7 Series System or equivalent. **We're proposing the Shure MXA310 solution requested above.**
- The podium microphone will need to be upgraded. City prefers the Shure MXA710 series array microphone or equivalent. City requires access to software after project completion to program from the control booth as necessary. **Shure MXA710 microphone was included as requested.**
- The podium monitor to be replaced with 22" wide screen monitor, offset from center to allow room for existing projector on left side. Podium device selection controller to be permanently mounted on top surface next to microphone array. **Included**
- The conference room currently utilizes an Owl conference room cam for the microphone and audio. Request to have a Shure MXA910 series microphone integrated with the Owl camera for conference room meetings. Will require a mute button to be installed in the conference table. **We're recommending the 710 model for this space given the size, and mute control from the touch panel.**
- Contractor will provide up to 4 hours training with City staff covering programming, operations, templated programming, troubleshooting, etc. **Included**
- Contractor will provide detailed as-builts for all work performed. **Included**
- Contractor will warranty workmanship and operations functionality for a minimum of 1 year, and a minimum of 3 years for all parts and equipment. **Included**
- Power / Electrical Requirements
- Bidders will include sufficient power backup systems with line conditioning to protect the equipment from power surges and allow an orderly automatic shutdown of the systems in the event of a power failure. The system should provide at least 30 minutes of continued operation before shutdown. If, in order to meet this requirement additional electrical work is required in the control room the bidder must specify the requirements as part of their proposal. **Included**

- All electrical work will be performed by a licensed electrical contractor. The contractor must have experience in isolated grounding and line conditioning for sensitive equipment. The contractor must also have experience performing electrical installations of A/V equipment. **Included**
- The electrical contractor will install Isolated Grounding Receptacles for the existing equipment in the A/V room. The contractor will calculate for the need of any additional power for the A/V room. All additional power will also be installed with isolated grounds and line conditioning. **Included**
- The contractor will propose and install the best options to create line conditioning for the power installed in the A/V room. **Included**
- The electrical contractor will be responsible for additional power needed for any and all new equipment installed by the A/V contractor. **Included**
- The contractor will run and install an isolated ground and ground bar for the isolated ground receptacles. The isolated grounding conductor will be connected to the service grounding electrode (ground bar). **Included**
- The contractor will perform all work and installations in compliance with the most current edition of the NEC (National Electrical Code). **Included**
- The electrical contractor will be responsible for obtaining all permits needed to perform the required work. **Included**
- The contractor will perform any calculations necessary to assure the electrical system can sufficiently carry any additional load required. **Included**
- The contractor will perform any calculations necessary to assure all new electrical installations and devices are rated and will be able to sufficiently carry the load they were installed for. **Included**
- The A/V contractor will consult and provide the electrical contractor with any and all information needed to power the equipment being installed. This may include but not be limited to location of equipment, specifications of equipment, and any special requirements for the powering of the equipment. **Included**
- The electrical contractor will also consult city staff and the A/V contractor as needed or requested in reference to the electrical installation. **Included**
- The electrical contractor will be responsible installing any new conductors, conduit, circuit breakers, and all other equipment/devices needed to complete the project. **Included**
- The electrical contractor will be responsible for finding the most ideal and efficient means of performing the installation. **Included**

- The electrical contractor will perform the installation with minimal disruption the aesthetics of the chamber. The conductors and devices will be ran within the walls, ceilings, ground, or by other means to prevent an unsightly appearance. **Included**
- The contractor will provide any sealed engineered documents necessary for permitting or otherwise required to complete the work. **Included**
- **Council Laminate table / desktop**
- The council members sit at a laminate top dais that is approximately 34' x 30". The laminate top is slightly arched.
- The existing dais laminate top needs to be removed and a new laminate top fabricated with insert holes to match where each monitor insert will be. **Included**
- The contractor is responsible for modifying the laminate top on the two tables/desks on each side of the dais in order to integrate the specified monitor into the top. **Included**

Trox has included an upgrade solution for these rooms based on the following list of equipment used for basis of design. All equipment shall meet or exceed the critical salient characteristics of the following items:

Qty	Manufacturer	Model #	Description
-	-	-	Video - Main
<u>1</u>	<u>Epson</u>	<u>V11H892920</u>	<u>15,000 Lumen Laser Projector</u>
<u>1</u>	<u>Epson</u>	<u>ELPLL08</u>	<u>Long Throw Lens</u>
<u>2</u>	<u>LG</u>	<u>98UM3DG-H</u>	<u>98" UM3DG-H Series UHD Digital Signage with webOS™, Built-in Quad Core SoC, Non-glare Coating, Crestron Connected</u>
<u>2</u>	<u>Chief</u>	<u>XTM1U</u>	<u>TV Mount</u>
<u>2</u>	<u>LG</u>	<u>86UL3G-B</u>	<u>86" UL3G-B Series IPS UHD Commercial Display Monitor (Back of Room)</u>
<u>2</u>	<u>Chief</u>	<u>XTM1U</u>	<u>TV Mount</u>
<u>7</u>	<u>Crestron</u>	<u>DM-RMC-4KZ-SCALER-C</u>	<u>DigitalMedia 8G+® 4K60 4:4:4 HDR Receiver & Scaler</u>
<u>6</u>	<u>Vaddio</u>	<u>999-99190-000</u>	<u>RoboSHOT 30E QUSB System</u>
<u>2</u>	<u>Panasonic</u>	<u>WV-X4573L(M)</u>	<u>360 Degree IP Camera / Network Camera</u>
<u>1</u>	<u>Vaddio</u>	<u>999-5660-500</u>	<u>AV Bridge MatrixMIX Production System (Matrix and Controller)</u>
<u>1</u>	<u>Vaddio</u>	<u>999-80000-027</u>	<u>TeleTouch 27" USB Touch-Screen Multiviewer</u>
<u>1</u>	<u>TekVox</u>	<u>MV71-4K-421</u>	<u>2x2 Video Wall Processor (Rec Pre, Pre, Post, Conf Room Pre)</u>

SCHERTZ COUNCIL CHAMBERS
A/V SYSTEMS REFRESH

<u>1</u>	<u>LG</u>	<u>55UL3G-B</u>	<u>55" UL3G-B Series IPS UHD Commercial Display Monitor (Control Room)</u>
<u>1</u>	<u>Chief</u>	<u>MTM1U</u>	<u>Medium TV Mount (Control Room)</u>
<u>16</u>	<u>LG</u>	<u>22MN430M-B</u>	<u>22" FHD IPS Monitor with FreeSync (Dias Monitor)</u>
<u>16</u>	<u>ErgoTron</u>	<u>33-387-085</u>	<u>Neo-Flex® Touchscreen Stand (Not Very Small)</u>
<u>2</u>	<u>Crestron</u>	<u>HD-DA8-4KZ-E</u>	<u>1:8 HDMI® Distribution Amplifier w/4K60 4:4:4 & HDR Support</u>
<u>2</u>	<u>Crestron</u>	<u>DM-RMC-4KZ-100-C</u>	<u>DigitalMedia 8G+® 4K60 4:4:4 HDR Receiver</u>
<u>2</u>	<u>Crestron</u>	<u>HD-DA2-4KZ-E</u>	<u>1:2 HDMI® Distribution Amplifier w/4K60 4:4:4 & HDR Support</u>
<u>1</u>	<u>Lumens</u>	<u>LC-200</u>	<u>CaptureVision</u>
<u>1</u>	<u>Panasonic</u>	<u>DMR-ES25S</u>	<u>DVD Recorder</u>
<u>1</u>	<u>Crestron</u>	<u>DM-MD32X32-CPU3-RPS</u>	<u>32x32 DigitalMedia™ Switcher</u>
<u>5</u>	<u>Crestron</u>	<u>DMC-4KZ-C</u>	<u>DM Input Cards</u>
<u>6</u>	<u>Crestron</u>	<u>DMC-4KZ-HD</u>	<u>HDMI Input Cards</u>
<u>5</u>	<u>Crestron</u>	<u>DMC-4KZ-CO-HD</u>	<u>DM Output Cards</u>
<u>3</u>	<u>Crestron</u>	<u>DMC-4KZ-HDO</u>	<u>HDMI Output Cards</u>
<u>1</u>	<u>Crestron</u>	<u>DM-PSU-16-PLUS</u>	<u>16-Port PoDM+ Power Supply for DM 8G+® I/O Cards</u>
<u>1</u>	<u>Crestron</u>	<u>DM-TX-401-C</u>	<u>DigitalMedia 8G+® Transmitter 401</u>
<u>4</u>	<u>Crestron</u>	<u>DM-TX-4KZ-100-C-1G-B-T</u>	<u>DigitalMedia 8G+® 4K60 4:4:4 HDR Wall Plate Transmitter, Black</u>
<u>1</u>	<u>Crestron</u>	<u>TS-1070-B-S</u>	<u>10.1 in. Tabletop Touch Screen, Black Smooth</u>
<u>15</u>	<u>Crestron</u>	<u>C2N-CBD-P-B-S</u>	<u>Crestron Cameo® Keypad, Standard Mount, Black Smooth</u>
<u>15</u>	<u>Crestron</u>	<u>CB2-BTNB-T ENGRAVED</u>	<u>Crestron Large Backlit Engravable Button Cap for Cameo Keypads, Black Textured, Includes Custom Engraving</u>
<u>15</u>	<u>Crestron</u>	<u>FP-G1-B-S</u>	<u>Crestron Decorator Style Faceplate, 1-Gang, Black Smooth</u>
<u>8</u>	<u>Crestron</u>	<u>C2N-IO</u>	<u>Crestron Control Port Expansion Module</u>
-	-	-	-
-	-	-	Lobby Display
<u>1</u>	<u>LG</u>	<u>55UL3G-B</u>	<u>55" UL3G-B Series IPS UHD Commercial Display Monitor</u>
<u>1</u>	<u>Chief</u>	<u>MTM1U</u>	<u>Medium TV Mount</u>
-	-	-	-
-	-	-	Audio Council Main
<u>15</u>	<u>Shure</u>	<u>MXA310</u>	<u>Table Microphone Array</u>

SCHERTZ COUNCIL CHAMBERS
A/V SYSTEMS REFRESH

<u>2</u>	<u>Shure</u>	<u>ULXD4Q</u>	<u>Quad Microphone Receiver</u>
<u>2</u>	<u>Shure</u>	<u>ULXD2/SM58</u>	<u>Digital Handheld Transmitter</u>
<u>4</u>	<u>Shure</u>	<u>ULXD1</u>	<u>Digital Bodypack Transmitter</u>
<u>4</u>	<u>Shure</u>	<u>WL183</u>	<u>Omnidirectional TQG Lavalier Microphone</u>
<u>6</u>	<u>Shure</u>	<u>SB900B</u>	<u>Rechargeable Battery</u>
<u>2</u>	<u>Shure</u>	<u>SBRC</u>	<u>Battery Rack Charger</u>
<u>1</u>	<u>Shure</u>	<u>MXA710B-2FT</u>	<u>Podium Mic</u>
<u>1</u>	<u>BiAmp</u>	<u>Tesira Server IO</u>	<u>DSP with 28 Analog In, 8 Analog Out, Dante, VoIP (NO AVB)</u>
<u>7</u>	<u>BiAmp</u>	<u>SEC-4</u>	<u>Input Cards</u>
<u>3</u>	<u>BiAmp</u>	<u>SOC-4</u>	<u>Output Cards</u>
<u>1</u>	<u>BiAmp</u>	<u>SVC-2</u>	<u>2 Line VoIP Interface Card</u>
<u>1</u>	<u>BiAmp</u>	<u>DAN-1</u>	<u>Dante Card</u>
<u>1</u>	<u>BiAmp</u>	<u>EX-OUT</u>	<u>AVB Enabled 4 Analog Output</u>
<u>1</u>	<u>BiAmp</u>	<u>TC-5D</u>	<u>AVB Enabled POE Switch</u>
<u>1</u>	<u>BiAmp</u>	<u>TC-5 Bracket</u>	<u>Mounting Bracket for TesiraCONNECT</u>
<u>1</u>	<u>Tascam</u>	<u>SS-CDR250N</u>	<u>2-channel networking CD/Media recorder</u>
<u>1</u>	<u>Tascam</u>	<u>IF-DA2</u>	<u>2 IN / 2 OUT Dante interface card for the SS-R250N/SS-CDR250N</u>
<u>1</u>	<u>Listen Technologies</u>	<u>LS-53-072</u>	<u>Listen iDSP Prime Level I Stationary RF System</u>
<u>1</u>	<u>Listen Technologies</u>	<u>LR-4200-072</u>	<u>Intelligent DSP RF Receiver</u>
<u>1</u>	<u>Listen Technologies</u>	<u>LA-401</u>	<u>Universal Ear Speaker</u>
<u>1</u>	<u>Listen Technologies</u>	<u>LA-430</u>	<u>Intelligent Earphone/Neck Loop Lanyard</u>
<u>1</u>	<u>Listen Technologies</u>	<u>LA-423</u>	<u>4-Port USB Charger</u>
<u>2</u>	<u>Crown</u>	<u>CT 875</u>	<u>Eight-channel, 75W @ 8Ω Power Amplifier</u>
<u>15</u>	<u>Cambridge Audio</u>	<u>MINX MIN 12</u>	<u>Bookshelf Speaker</u>
<u>15</u>	<u>Cambridge Audio</u>	<u>Arr.</u>	<u>Table stands</u>
<u>1</u>	<u>AKG</u>	<u>HP12U</u>	<u>12-Channel Headphone Amplifier (For Dias)</u>
<u>1</u>	<u>AKG</u>	<u>HP4E</u>	<u>4- Channel Headphone Amplifier (Side Tables)</u>
<u>15</u>	<u>Liberty</u>	<u>Custom</u>	<u>1/4" Jack Wallplate / With Banana Plug for Monitor Speaker</u>
<u>2</u>	<u>Dynacord</u>	<u>C1300FDI-US</u>	<u>DSP power amplifier 2x650W, install. With FIR drive</u>
<u>1</u>	<u>EVID</u>	<u>EVC-1122-VIB</u>	<u>12" speaker, vari-intense indoor</u>
<u>1</u>	<u>EVID</u>	<u>EBK-M10-3PACK</u>	<u>EBK-M10, FORGED M10 EYEBOLT KIT SET OF 3, for EVC</u>
<u>2</u>	<u>EVID</u>	<u>EVC-1082-96</u>	<u>8" speaker 90x60 (Side Effects)</u>
<u>2</u>	<u>EVID</u>	<u>EVC-WB</u>	<u>Wall Bracket 8" (Side Effects)</u>

SCHERTZ COUNCIL CHAMBERS
A/V SYSTEMS REFRESH

-	-	-	-
-	-	-	Audio Lobby, Control Room
6	<u>EVID</u>	<u>EVID-C6.2</u>	<u>Ceiling Speakers</u>
1	<u>JBL</u>	<u>306P MkII</u>	<u>Powered 6" (15.24 cm) Two-Way Studio Monitor</u>
1	<u>JBL</u>	<u>CSA 1300Z</u>	<u>1 Channel / 300W Audio Amplifier</u>
-	-	-	-
-	-	-	Control Main
1	<u>Crestron</u>	<u>TS-1070-B-S</u>	<u>10.1 in. Tabletop Touch Screen, Black Smooth</u>
1	<u>Crestron</u>	<u>PRO4</u>	<u>4-Series™ Control System</u>
1	<u>Crestron</u>	<u>TS-1542-B-S</u>	<u>15.6 in. HD Touch Screen, Wall Mount or VESA, Black Smooth</u>
1	<u>Crestron</u>	<u>DM-RMC-4KZ-SCALER-C</u>	<u>DigitalMedia 8G+® 4K60 4:4:4 HDR Receiver and Scaler</u>
1	<u>Niveo</u>	<u>NGSME48T2H</u>	<u>48-Port Full Layer 2+ Management, plus 2 10G SFP+ Gigabit Ethernet PoE+ Switch (400W)</u>
2	<u>Middle Atlantic</u>	<u>PD-915R</u>	<u>Rack Mount Power Strip 9-Outlet</u>
1	<u>Middle Atlantic</u>	<u>BGR-4527-AV</u>	<u>45 Space Rack</u>
1	<u>Middle Atlantic</u>	<u>PDS-620R</u>	<u>Power Sequencer</u>
2	<u>Middle Atlantic</u>	<u>UPS-2200R-8IP</u>	<u>UPS</u>
-	-	-	-
-	-	-	Video Executive Room
1	<u>Crestron</u>	<u>DM-TX-4KZ-302-C</u>	<u>4K60 4:4:4 HDR Transmitter 302</u>
1	<u>Crestron</u>	<u>DM-TX-4KZ-202-C</u>	<u>4K60 4:4:4 HDR Transmitter 202</u>
1	<u>Crestron</u>	<u>DM-RMC-4KZ-SCALER-C</u>	<u>DigitalMedia 8G+® 4K60 4:4:4 HDR Receiver & Scaler</u>
1	<u>LG</u>	<u>86UL3G-B</u>	<u>86" UL3G-B Series IPS UHD Commercial Display Monitor (Back of Room)</u>
1	<u>Chief</u>	<u>XTM1U</u>	<u>TV Mount</u>
2	<u>Crestron</u>	<u>FT2-500-ELEC-B</u>	<u>FT2-500 Cabe Cubby</u>
2	<u>Crestron</u>	<u>FT2A-CBLR-1T-HD</u>	<u>One-Touch Cable Retractor for FT2 ELEC Series, HDMI to HDMI</u>
2	<u>Crestron</u>	<u>FT2A-CBLR-1T-4K-USBC-HD</u>	<u>One-Touch Cable Retractor for FT2 ELEC Series, USB-C to HDMI</u>
2	<u>Crestron</u>	<u>FT2A-PWR-US-2</u>	<u>AC Power Outlet Module for FT2 Series, Dual, US</u>
2	<u>Crestron</u>	<u>FT2A-CHGR-USBA/C</u>	<u>USB Rapid Charging Module for FT2 ELEC Series</u>
2	<u>Crestron</u>	<u>FT2A-UTK-CLOAK-1T</u>	<u>Under Table Cloak for FT2-500</u>
-	-	-	-
-	-	-	Audio Executive Room
6	<u>EVID</u>	<u>EVID-C6.2</u>	<u>Ceiling Speakers</u>

<u>1</u>	<u>JBL</u>	<u>CSA 1300Z</u>	<u>1 Channel / 300W Audio Amplifier</u>
<u>1</u>	<u>Shure</u>	<u>MXA710B-4FT</u>	<u>Ceiling Mic (Zoom Ready, but Only Used For Recording)</u>
<u>1</u>	<u>Tascam</u>	<u>SS-CDR250N</u>	<u>2-channel networking CD/Media recorder</u>
<u>1</u>	<u>Tascam</u>	<u>IF-DA2</u>	<u>2 IN / 2 OUT Dante interface card for the SS-R250N/SS-CDR250N</u>
-	-	-	-
-	-	-	Control Executive Room
<u>1</u>	<u>Crestron</u>	<u>TS-770-B-S</u>	<u>7 in. Tabletop Touch Screen, Black Smooth</u>

DELIVERY, STORAGE, AND HANDLING

- A. To prevent damage or entrance of foreign matter, product will be shipped in its original container.
- B. We shall transport material in accordance with manufacturer's recommendations.
- C. We shall provide appropriate protective covering during installation.
- D. Any product damaged during shipping, storage or handling by Summit shall be replaced at no expense to client. Damage caused by others will be handled upon mutual agreement by all parties involved.
- E. If possible we request the client provide a secure location for onsite or on campus storage of the equipment we are providing. We are aware that the stored equipment is still our responsibility in the event of loss or damage.

PROJECT CONDITIONS

- A. Trox will make every effort to field verify job site conditions applicable to our scope of work. We will notify client in writing (this includes email) of discrepancies, conflicts, or omissions promptly upon discovery.

FINAL INSPECTION AND TESTING

Upon completion of commissioning Summit will receive project sign-off and close-out documentation will be given to client. On this date the one-year warranty will begin. In the event client begins using the equipment prior to the final inspection and testing, the 1 year warranty will begin immediately and system acceptance will be presumed.

WARRANTY:

A. Trox shall warrant equipment to be free of defects in materials for three years and workmanship for one-year following the date of project sign-off. Other than for commissioning purposes any use of any equipment provided by Trox is not allowed until after acceptance and project sign-off. If regular use happens Trox assumes client has accepted the installation as is and sign-off will be required of.

B. The AV systems provided by Trox is designed to be free of defects and deficiencies, and to conform to the drawings and specifications above in terms of kind, quality, function, and characteristics stated in this scope of work. Trox will repair or replace defects occurring in labor or materials within the warranty period without charge to client.

C. Within the Warranty period, answer service calls within eight hours, and we will make every effort to correct the problem within twenty-four hours.

D. This warranty shall not void specific warranties issued by manufacturers for greater periods of time, nor shall it void any rights guaranteed to client by law.

E. Trox will provide client with the name, telephone number and email address of the POC for service. This information will be included as part of close-out documentation.

F. Thirty days prior to the end of the warranty period Trox will provide a complete checkout of all system components and repair or replace any defective equipment discovered during the testing. We shall correct free of charge any defects in wiring or other functional problems reported to us by client that is not caused by user error or a deviation of the initial intent of the system as described above. Warranty replacement and service of equipment shall not apply to owner furnished equipment. Trox will coordinate inspection visit with client.

INSTRUCTION OF CLIENT PERSONNEL

A. After final completion, Trox will provide instruction to client designated personnel on the proper operation and maintenance of the System.