

Richland County Courtroom AV Project

Bids are due to Barbara Scott MIS Director at Barbara.scott@co.richland.wi.us by Noon on October 30th, 2020. All inquiries should be directed to the same address.

SCOPE OF WORK:

Courtroom AV update to improve audio and video quality, bring the Polycom system up to date so it can communicate with outside participants, provide a way to integrate with new CCAP standards and re-wire the space for changes in the room layout. To accomplish this, we propose the following components and design:

-(3) new HD PTZ SDI cameras. (2) will replace the cameras mounted on the wall to the left and right of the bench and will have 12x zoom capability. The third camera will be installed in a new location on the wall to the left of the projection screen and will have a 30x zoom to be able to capture the bench and witness locations.

-SDI windowing processor for the camera feeds to provide a custom view of all 3 cameras at the same time for far side participants to see multiple views in the room at the same time.
**Please note that presentation video will be sent separately to the Polycom.

-Polycom Group 500 720p codec with one-year service agreement integrated into the system with the windowing processor as the camera feed, a content video input feed, an audio feed from the audio system and an HDMI output feed into the video system for viewing.

-Crestron Digital Media presentation system for video switching, routing and over all AV system control.

-10" table top Crestron touch panel for overall easy to use custom system control. This will control audio levels, projector power, Polycom controls, camera controls, VOIP dialing and video switching for the room. The touch panel will live on the judge's bench in place of the existing panel.

-Fixed wall mounted Dalite UBT contour projection screen with HD progressive 1.1 gain screen material in a standard 16:10, 164" diagonal with an 87" high x 139" wide projection surface. This will be installed in place of the existing motorized wall mount screen.

**Richland County to have electrician remove the existing screen and provide any required wall patching.

-Panasonic 8000 lumen WUXGA (1920x1200) wall mounted using a dual stud wall mount (on the opposite wall as the screen) laser projector and custom lens to accommodate the roughly 39' throw distance.

-24" desktop 16:10, WUXGA (1920x1200) monitor at the court reporter's desk with mirrored video feed of what is on the projector. This will be an IPS display for optimal viewing. Please note that this monitor may not be able to be controlled with the AV system.

-(2) HDMI input plates will be installed in new floor boxes (**AV contractor provided, electrical provider installed) at the plaintiff and defense table locations. 12' HDMI cables will be provided to connect to the inputs in the floor boxes.

-Biamp audio processor and AEC expander to handle mixing, routing and processing of audio signals as well as providing a VOIP interface for direct conference dialing through the Richland County's Mitel phone system.

-(4) new white speakers, each is a 2-way speaker with 8" woofer and 1U rack mounted amplifier with 120 watts x 2. (2) speakers will be installed in the corners of the room covering the main court area to replace the existing speakers and the other (2) will be installed up on the beam replacing the existing 3 speakers to cover the audience area.

-(3) new digital wireless microphones for mobile use. (2) over the ear mics with body pack transmitters and one hand held microphone. The antennas are to be combined and front panel included 1/4 wave antennas will be mounted to the combiner in the rack.

-New 22-2-shielded plenum cabling to be pulled from each of the (8) required locations to the new rack location. All wired microphones will be provided by CCAP as well as a CCAP provided digital audio system. Wiring is to be terminated to new XLR wall plates or an in-line disconnect depending on the location and ability to install a plate and then will terminate to the CCAP audio system, which will provide direct looped out, microphone level audio feeds to the AV systems Biamp processor. This must be closely coordinated with CCAP personnel for both system drawings and scheduling coordination.

-AV system is to provide (2) sub-mixed audio feeds to the CCAP audio system as well. One feed is to have all (3) wireless mics sub-mixed and the other shall have any program audio sub-mixed.

-(2) new floor boxes are to be provided and are to be installed by a Richland County provided electrical contractor. The floor box is to have recessed 4 gangs of space. There is to be a duplex decora outlet (provided and installed by electrical contractor), HDMI white decora plate, XLR white decora plate and a white 6 port strap for Richland County provided existing data lines. The floor boxes are to be located in place of the existing 2 floor boxes, one at the defense table and one at the plaintiff table.

-(2) 14U pull out rack frames for equipment. They will be installed in a Richland County provided custom credenza and are intended to also provide 6U of space for CCAP audio equipment. ****IT IS IMPERATIVE THAT THE SIZE OF THE CREDENZA SPACES IS DESIGNED TO ALLOW THE RACKS TO FIT AND MUST HAVE VENTILATION DESIGNED TO CREATE AIRFLOW SO AV EQUIPMENT CAN MAINTAIN AN IDEAL OPERATING TEMPERATURE. THE INSIDE DIMENSIONS OF EACH OF THE 2 CABINET SPACES MUST BE AT LEAST 23" WIDE X 31" HIGH AND 22" DEEP WITH A MINIMUM OPENING FOR THE RACK TO PULL OUT MUST BE 21" WIDE AND 31" HIGH. POWER MUST ALSO BE PROVIDED IN BOTH CABINET SPACES TO POWER THE EQUIPMENT.**

-All other AV cabling is also to be replaced and run to the new AV rack location .
**Richland County/electrical contractor to provide new cable paths in the floor as needed as the flooring is going to be replaced. Paths are to be determined and specified by AV contractor, installed by electrical contractor.

-Crestron system programming and overall system testing. This must include providing the original Crestron source code to the Richland County upon request at no additional charge.

-(4) hours of system training split into 2 training sessions.

-System schematics, layouts and elevation drawings are to be provided to the Richland County for approval before installation and as-built drawings are to be provided within 30 days of system completion.

Separate assisted listening system- This is to bring the hearing assistance system up to ADA requirements and shall include:

-FM transmitter base station, rack mounted with remote antenna option. Antenna is to be mounted behind the credenza or potentially inside as long as it is not obstructed by the rack.

-(8) lithium rechargeable body pack receivers.

-(8) universal earphones.

-(2) neck worn hearing loops.

-(1) 12-unit advanced charging dock for receivers.

-(1) hearing assistance sign for Richland County installation.

- Proposal based on the work being performed during normal business hours.

- Richland County to provide all 120V AC power for project including racks, projectors, equipment and any other location.

- Richland County to provide network connections and IP addresses for devices in AV system as needed as well as any IT support.

- This proposal is based on cable paths being provided by owner and being free of obstruction in walls, ceilings and or conduit. If obstructions do exist, additional cabling, labor and or devices may apply and are not included.

- Richland County to provide any ceiling grid removal and or repair as well as any other cosmetic needs like painting, millwork, etc. for the project.
- Richland County to provide a location for disposal of component packaging as well as misc job waste/scrap.

- The projector and or camera mount is a standard mount. In rare occasions buildings and/or ceilings may vibrate causing the projector or camera to vibrate, causing the image on the screen to move. This is a rare occurrence, but in the event it would occur on this project additional expense could be incurred to resolve the issue.

- Lighting, including ambient lighting, can greatly effect both projection systems and camera systems and their perceived quality. Lighting directly and indirectly shining on a projection screen can wash out the image. Richland County would like input on zoning the lights in the room if needed, so that lighting hitting the screen is reduced to greatly increase picture quality. Also, for cameras, good lighting is critical for a high quality picture. Portable or specialized directional lighting is highly recommended, especially when dealing with cameras and projection screens in the same space.

- PREVAILING WAGE: This project will be subject to prevailing wage rate.

- Scaffolding capable of safely reaching install area to be provided by vendor.

- Network connectivity will be done in coordination with Richland County MIS.

- Yearly maintenance costs to be listed as option for 1 year, 3 years and 5 year.

Mfr-Part No.	Qty	Description
Vaddio-999-99300-00	2	RoboSHOT 12E SDI- White, 12x Zoom and H.264 Streaming 0W
Vaddio-999-99330-00	1	RoboSHOT 30E SDI- White, 30x Zoom and H.264 Streaming 0W
Polycom-7200-65088	1	Group 500 CODEC Only 720P, NTSC/Pal 001
Polycom-4870-65088-	1	Total Coverage, 1 YR, CODEC Only, RP G RP500 720P 160
tvONE-C2-6204	1	CORIOview 4-Window HD-SDI Multiviewer. Max Res 1080p/60 (3G)
Crestron-DMPS3-300-C	1	3-Series« DigitalMedia Presentation System 300
Crestron-PW-4818DU	1	48V Power Pack for PoDM
Crestron-TSW-1060- B-S	1	10.1" Touch Screen, Black Smooth
Crestron-TSW-1060- TTK-B-S	1	Tabletop Kit for TSW-1060, Black Smooth
Crestron-DM-TX-4KZ-100-C-1G-W-T	2	DigitalMedia 8G+ 4K60 4:4:4 HDR Wall Plate Transmitter, White
CRESTRON-DM-RM C-4KZ-100-C	1	DigitalMedia 8G+« 4K60 4:4:4 HDR Receiver & Room Controller 100
Dalite-24486	1	UBT Contour, 16:10, 87"x139", 164"D, HD Progressive 1.1
Panasonic-PT-MZ770 LU	1	WUXGA 1920x1200 8000 Lumen LCD Laser Projector, No Lens - White
Panasonic-ET-ELT22	1	2.7-4.5:1 Zoom Lens for PT-MZ670/770
Chief-WMA2S	1	Heavy Duty Wall Mount, Dual Stud
Chief-CMS003W	1	3" Fixed Extension Column- White
Chief-RPAUW	1	Universal Projector Mount- White
Asus-PA248QV	1	ProArt Display 24.1", 1920x1200, IPS
BIAMP-TESIRAFORT E AVB VT	1	Fixed Audio DSP 12 In, 8 Out, AVB, AEC, VoIP, Telephone
Biamp-TESIRA EX-AEC	1	4 Channel AEC, POE+ AVB Expander
Araknis-AN-ACC-INJ- POE-30W	1	Network Accessory Gigabit PoE+ Injector
Biamp-AMP-460H	1	4 Channel, 60W (or 120x2) Half-Rack Amplifier
Community-DS8-W	4	Two-Way 8" Full-Range Coaxial Surface Mount Speaker (White)
Shure-SLXD24/SM58-H55	1	UHF Digital Wireless Handheld Microphone System (H55 Band)
Shure-SLXD14/153T-H55	2	Combo Sys- SLXD1 Bodypack, SLXD4 Receiver, and MX153T Ear Mic
SHURE-UA845UWB	1	5 Way Active Antenna/Power Distro System for QLX-D, ULX, SLX,
Strong-SR-CAB-14U	2	14U In-Cabinet Rack
Strong-SR-RACKSLI DE-300	2	Rack Sliding Base for In-Cabinet and Contractor Series Racks-BLK
WattBox-WB-400-VC E-12	2	Power Conditioner w/Safe Voltage,12 Outlets - 4320J, 2 EMI/RFI

Cisco-SG110-16HP-NA	1	16 Port Layer 2 Gigabit Switch, 8x PoE Ports
	1	Patch Panel and Rack Accessories – Panduit UTP Mini-Com®
FSR-FL-1550-BLK	2	4-Gang Floor Box with Black Hinged Cover
RDL-D-XLR3F	6	Decora-Style Wall Plate with Solder-Type 3-Pin XLR-F Plu
RDL-D-XLR2F	1	Dual XLR Female Decora Wall plate. Solder Type.
	2	White 6 Port Strap and Snap in Ports as Needed
	1	Cables, Connectors, Hardware
Binary-HDMI 12'	2	4K60 4:4:4 Ultra HD Premium HDMI - 4m (13')
Binary-HDMI 6'	4	4K60 4:4:4 Ultra HD Premium HDMI - 2m (6')
Liberty-E-HD-DVI-03	1	9.84' Liberty Premium Molded HDMI to DVI Digital Cable
WINDY-SEN-111S08 080090H34	10	RJ45 Cat6/6A Shielded Connector

Windy City Wire-RG6	500	RG6 Quad Shield Plenum - White
QUAD SHEILD		
PLENUM		
WINDY-CAT 6A PL	750	Cat 6A Plenum Shielded - White
SHLD WH		
Bulk-CAT 6 PL WH	750	Cat 6 Plenum - White
WINDY-22/2	1200	22 ga 2 Conductor Shielded Cable-Plenum
Shield-Plenum		
Bulk-16/2 PLENUM	500	16 ga/2 Conductor Stranded Plenum Control Cable

Assisted Listening System		
Mfr –Part No.	Qty	Description
Listen-LS-54-072	1	DSP Prime Level II Stationary RF System (72MHz)
Listen-LR-4200-072	4	Intelligent DSP RF Receiver (72MHz)
Listen-LA-401	4	Universal Ear Speaker
Listen-LA-381-01	1	Advanced Intelligent 12-Unit Charging Tray
	1	Cables, Connectors, Hardware
	1	Installation