

UCCS Breckenridge House AV Refresh-Project Definition

Owner:

University of Colorado – Colorado Springs

Consultant:

Eleven Tech Group

Project:

Breckenridge AV Refresh- Project #17-012

Part 1 - Project Description:

- A. Remodel of existing facility consisting of four classrooms on the ground floor. Four story building was originally built in 1996. The rooms in the project requiring AV support consist of one large classroom and three small classroom/breakout rooms. The rooms shall be designed to support AV presentations exclusively; no video or audio conferencing will be required.
- B. Lighting control has been requested in the Large Classroom. The owner's electrical subcontractor shall install the Crestron lighting devices.
- C. This project will require updated electrical for the new AV equipment and lighting control in addition to new network cabling. This work will be provided by the owner.
- D. The new AV systems shall be required to meet 2010 ADA Standards for Accessible Design.
- E. Audio Visual Systems control and Lighting control programming shall be an independent Crestron Service Provider.
- F. The owner is planning to install new carpet, install new non-motorized blinds and re-paint the classroom walls during the AV systems refresh project duration.
- G. There are two system *types* in this project, a large classroom and small classroom/breakout room, described in detail below.

1.1 Large Classroom

The large classroom (Room 5101) consists of two ceiling mounted projectors and two fixed Da-Lite IDEA Panoramic screens. Both projectors will display identical sources and there is no matrix routing. An ADA compliant lectern/equipment rack combination shall be provided by the owner. Large Classroom AV Sources shall consist of an owner provided All-in-One Room PC, connections for a Presenter laptop, Document Camera and a Blu-Ray DVD player. The owner is currently evaluating a collaborative BYOD solution which is included in the project. A lectern mounted touch panel shall provide audio visual and lighting control. Audio Visual system functionality shall be limited to presentations.

- A. Room 5101 is the large classroom and is 44' wide x 30' deep with 8' ceilings and was originally built as two rooms with a divisible wall which has been removed. The divisible wall ceiling track is still in place but the original doors and divisible wall pocket have been replaced by a single out-swing door. The room is encircled by hard lid ceiling with the inner section of the ceiling consisting of 2' x 2' ceiling tiles with 2' square fluorescent troffer light fixtures. The hard lid ceiling contains recessed lighting fixtures around the perimeter of the room. This room has existing AV equipment (surface mounted powered screens, projectors, non-ADA compliant podium) which will be removed as part of the remodel effort. A new podium will be installed audience left in the room and shall be ADA compliant. The two existing whiteboards shall be removed and replaced with two Da-Lite IDEA Panoramic screens with a center projection surface flanked by white boards on the SE wall. Manual window shades shall be installed as part of this project but do not require control.

1.2 Small Classroom/Breakout Rooms

The three small classroom/breakout rooms (Room 5104, 5106 & 5113) are all of similar dimensions (30' x 18') which require identical AV functionality with a single Da-Lite IDEA Panoramic screen, a single interactive ultra-short throw projector and wall mounted racks. Breakout room AV sources shall consist of an owner provided All-in-One Room PC, connections for a Presenter

laptop and a Blu-Ray DVD player. The owner is currently evaluating a collaborative BYOD solution which is included in the project.

- A. Room 5104 was originally built as two divisible rooms which have been combined into a 30' x 18' space with 8' ceiling. The ceiling is 2' x 2' ceiling tiles with no hard lid. The existing white boards on the NW wall shall be removed and replaced with a Da - Lite IDEA Panoramic screen. An Extron MLM-WB+ wall mounted rack shall be installed audience right of the IDEA screen. An owner furnished Dell All in One PC shall be installed to a wall mounted articulating arm. All wall mounted units to comply with ADA Section 508. Due to this room being originally constructed as two rooms there are entrance doors at the front and rear of the room. The white boards on the left & right walls shall remain. The customer is exploring the possibility of removing the door at the front of the room. There are no windows in this room.
- B. Room 5106 is identical in size to 5104 (30' x 18' x 8') with the only difference being a single door at the rear of the classroom. The ceiling is 2' x 2' ceiling tiles with no hard lid. The two existing white boards on the NW wall shall be removed and replaced with the DA – Lite IDEA Panoramic screen. The remaining white boards on the left and right walls shall remain. An Extron MLM-WB+ wall mounted rack shall be installed audience right of the IDEA screen. An owner furnished Dell All in One PC shall be installed to a wall mounted articulating arm. All wall mounted units to comply with ADA Section 508. There are no windows in this room.
- C. Room 5113 is slightly larger than the other two breakout rooms at 19' 4" wide x 30' deep with the additional ceiling height of 9'. The ceiling is 2' x 2' ceiling tiles with no hard lid. The two existing white boards on the NW wall shall be removed and replaced with the Da – Lite IDEA Panoramic screen. An Extron MLM-WB+ wall mounted rack shall be installed audience right of the IDEA screen. An owner furnished Dell All in One PC shall be installed to a wall mounted articulating arm. All wall mounted units to comply with ADA Section 508. The windows on the SW wall will receive new manual shades with no control required.

1.3 IDF

Room 5205 on the second floor is the IDF for the first floor data infrastructure and all network cables shall terminate in this location. The current standard for audio visual network connected devices are for all components to be connected directly to a University IT managed switch with a dedicated VLAN for AV control devices. Coordination between University IT staff is required for provisioning of the managed network switch in addition to DHCP reservations via Mac address. New network cabling installed for this project shall meet the University's Commscope ND&I standard where applicable.

Part 2 - Project Duration

- A. Physical construction to start no sooner than May 15th 2017 to be substantially complete by August 1st, 2017
- B. Audio visual installation to coincide with physical construction timeline and must be substantially complete by no later than August 1st, 2017.
- C. Crestron programming should be complete by August 4th, 2017
- D. End User Training should take place the week of August 7th, 2017
- E. Expected First use is scheduled to be August 14th, 2017

Part 3 - Scope of Work

- A. The audiovisual contractor shall provide and install all audio visual system equipment and any interfaces & cabling to provide a fully functional and operational system per the provided equipment list and project drawings.
- B. The audio visual contractor shall provide coordination and support with the owner's designated subcontractors for construction, electrical and network cabling infrastructure.
- C. The audio visual contractor shall be required to coordinate with the owner's IT administrators for network access, IP addressing, VLAN configuration and any other network topology required for proper functionality of the audio visual system devices. Under no circumstances shall an unmanaged network switch not under the owner's supervision be installed.
- D. The audio visual contractor shall provide one hard copy set of detailed shop drawings prior to the start of installation and a PDF copy for electronic distribution. The shop drawings must be approved by the consultant and owner prior to commencing any onsite installation or shop fabrication.
- E. The audio visual contractor shall appoint a single point of contact and provide a detailed project schedule. The project manager shall provide the consultant and owner with weekly status reports on the project progress. The contractor shall report in a timely fashion any risks to the project schedule and defined project milestones.
- F. The audio visual contractor shall provide system commissioning, testing and reporting i.e. Crestron's DM Tools to verify the systems are 100% functioning prior to scheduling owner's independent programmer. All AV systems shall be functioning manually 100% prior to Crestron programming being scheduled to be verified by consultant and owner. Contractor to

provide onsite support during Crestron programming to assist with any systems found to be non-functioning during programming.

- G. The audio visual contractor shall be an approved vendor of the University of Colorado in good standing.

Part 4 - Equipment

- A. Unless otherwise indicated, equipment in this section shall be standard off the shelf available products. The consultant or the owner retains the right to reject product substitutions.
- B. Unless otherwise indicated, the equipment by the following manufacturers shall not be substituted. The contractor shall provide the most current model and/or version of product available at time of procurement.
- C. The audio visual contractor shall hold current authorized dealership status for the following manufacturers.
1. Crestron
 2. Extron
 3. Epson
 4. Milestone (Chief & Da-Lite)
 5. Wolfvision
- D. The audio visual contractor shall provide manufacturer backed maintenance, warranty and technical support for the above listed equipment.
- E. Refer to Appendix A for equipment list.
- F. Crestron Master Quote 1055645 Rev. 1 has been assigned to this project for purchasing coordination.

Part 5 - Power Distribution

- A. The Audio Visual Contractor shall provide all power distribution equipment required to provide a fully functional and operating system ready for the Owner's use. Power distribution equipment shall include but not be limited to; power conditioners, surge suppressors, power supplies, power strips, power cords and power cabling.
1. Power distribution equipment may or may not be indicated in drawings and/or specifications.
 2. Power distribution equipment indicated within drawings and/or specifications are shown for specific implementation, isolation from other uses, or general clarification.
 3. Power distribution equipment shown within drawings and/or specifications does not represent the power distribution equipment in its entirety, the Contractor shall provide remaining power equipment as required to provide a fully functional and operating system for the Owner's use.

Part 6 - Wire & Cable

A. This equipment shall as a minimum conform to the following specifications and be plenum rated. Cable conductor and gauge requirements may vary depending on device requirements. Audio Visual Contractor to determine and utilize cables with proper conductor and gauge requirements to provide optimum operation of system devices.

1. Control System Data: This cable shall be a Shielded Twisted Pair, (2) 18 AWG stranded conductor and a Shielded Twisted Pair, (2) 18 AWG stranded conductor.
2. Infrared: This cable shall be a Shielded Twisted Pair, (2) 22 AWG stranded conductor.
3. Line Level Audio: This cable shall be a Shielded/Twisted/Pair, two 22 AWG stranded conductor.
4. Loudspeaker Audio (25/70/100 volt Distributed): This cable shall be an Unshielded/Twisted/Pair, two 16 AWG stranded conductor.
5. Microphone Audio: This cable shall be a Shielded/Twisted/Pair, two 22 AWG stranded conductor.
6. Power supply: This cable shall be a Shielded Twisted Pair, Unshielded Twisted Non-Pair, (2) 18 AWG stranded conductor.
7. RS-232 Data: This cable shall be a Shielded/Twisted/Pair, two 24 AWG stranded conductor.
8. RS-422 Data: This cable shall be a Shielded Twisted Pair, (4) 24 AWG stranded conductor.

9. RS-485 Data: This cable shall be a Shielded/Twisted/Pair, four 24 AWG stranded conductor.

10. Crestron 8G: Tyco TE640PF-YL02 - AMP NETCONNECT CBL XG620 4/23 CMP YL (TE# 4-1499416-7)

Part 7 Manufacturer Support

A. The Audio Visual Contractor shall provide any manufacturer backed maintenance, warranty and/or technical support contract necessary for the Contractor to configure, operate, service, repair and/or replace any component of the Audiovisual System. The contract shall be valid for the duration of the warranty period. The Contractor shall purchase the contract in the Owner's name and provide documentation and renewal information to the Owner at acceptance testing.

Part 8 Coordination

A. The Audio Visual Contractor shall closely coordinate with the Owner to ensure that Owner provided equipment is procured, configured (as necessary), and installed (as necessary) with ample lead time prior to the Contractor's use of the equipment. While all attempts to mitigate coordination issues due to the nature or remodel projects the Contractor is advised to participate in all pre-bid meetings. The contractor is also advised to provide the appropriate contingency for time and or materials due the nature of remodel projects.

END OF SPECIFICATION

Appendix A:

Parent Area	Area	Manufacturer	QTY	Part Number	Description	Supplier Category
Room 5101						
Room 5101	Field Dev/Video	Da-Lite	2	27970T	IDEA Panoramic white board projection screen-53" x 192" w/full length marker tray	AV Contractor
Room 5101	Field Dev/Video	Epson	2	L1100UNL	6k lumen laser projector (order minus lens)	AV Contractor
Room 5101	Field Dev/Video	Epson	2	ELPLU03	short throw lens	AV Contractor
Room 5101	Field Dev/Audio	Extron	6	FF120T	1' x 2' drop ceiling speaker - 70V (sold in pairs)	AV Contractor
Room 5101	Field Dev/Control	Crestron	1	TSW-760-TTK-B-S	table top kit for TSW-760 touch panel, black	AV Contractor
Room 5101	Field Dev/Lighting	Crestron	2	CLW-DIMEX	Lighting wall controller-Dimmer circuits	AV Contractor Furnished Owner Installed
Room 5101	Field Dev/Lighting	Crestron	2	CLW-SWEX	Lighting wall controller-Switched circuits	AV Contractor Furnished Owner Installed
Room 5101	Field Dev/Rack	Chief	2	CMS491CP2	plenum rated junction box with projector mount + power	AV Contractor
Room 5101	Field Dev/Rack	Chief	2	RPAUW	universal projector mount, white	AV Contractor
Room 5101	Field Dev/Rack	Chief	2	CMS0xxW	projector fixed extension column as required	AV Contractor
Room 5101	Rack Dev/Video	Crestron	1	DMPS3-4k-100-C	DM Presentation video switcher	AV Contractor
Room 5101	Rack Dev/Video	Crestron	1	DM-DA4-4k-C	1 input 4 output HDMI to DM distribution amplifier for dual projectors	AV Contractor
Room 5101	Field Dev/Control	Crestron	1	TSW-760-B-S	7" color touch panel, black	AV Contractor
Room 5101	Lectern Dev/Video	Crestron	1	TT-101-B-T	Connect-It lectern interface plate (network, HDMI, VGA, Audio) + power	AV Contractor
Room 5101	Lectern Dev/Video	Sony	1	BDPS1700	Blu-Ray Player	AV Contractor
Room 5101	Rack Dev/Furniture	Middle Atlantic	1	UMS1-11.5	Blu ray Player UMS Rackshelf, 1 RU, 11.5"D	AV Contractor
Room 5101	Lectern Dev/Video	Wolfvision	1	VZ-3neo	document camera (add swivel option)	AV Contractor
Room 5101	Lectern Dev/Video	Wolfvision	1	102286	swivel base for VZ-3neo doc camera	AV Contractor
Room 5101	Rack Dev/Audio	Crestron	1	AMP-1200-70	mono 70V power amplifier	AV Contractor
Room 5101	Rack Dev/Audio	Crestron	2	ST-RMK	half rack mounting kit	AV Contractor
Room 5101	Rack Dev/Furniture	Extron	1	60-632-02	AAP 301 1ru rack plate	AV Contractor
Room 5101	Rack Dev/Furniture	Extron	1	70-103-18	One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik (Black)	AV Contractor
Room 5101	Rack Dev/Furniture	Extron	1	70-090-12	Blank Plate - Double (Black)	AV Contractor
Room 5101	Rack Dev/Audio	Mersive	1	Solstice Pod	BYOD collaboration device	AV Contractor
Room 5101	Rack Dev/Power	Surge X	1	SX-1120-RT	20A rack mount surge protection	AV Contractor
Room 5101	Lectern Dev/Furniture	Spectrum Industries	1	95522B	FPM Monitor Arm - Medium Monitor 7.5-25 lbs Black	Owner Furnished Contractor Installed
Room 5101	Lectern Dev/Furniture	Spectrum Industries	1	Freedom One eLift Lectern	ADA compliant sit/stand lectern, owner to confirm finish	Owner Furnished Contractor Installed

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Room 5101	Lectern Dev/Video	Dell	1	7450	AIO PC	Owner Furnished Contractor Installed
Room 5104						
Room 5104	Field Dev/Video	Da-Lite	1	27978T	IDEA Panoramic white board projection screen - 46" x 144" w/full length marker tray	AV Contractor
Room 5104	Field Dev/Video	Epson	1	Bright Link 696Ui	Ultra Short Throw projector 1920 x 1200	AV Contractor
Room 5104	Field Dev/Audio	Extron	3	FF120T	1' x 2' drop ceiling speaker - 70V (sold in pairs)	AV Contractor
Room 5104	Field Dev/Control	Crestron	1	TSW-760-B-S	7" color touch panel, black	AV Contractor
Room 5104	Rack Dev/Audio	Crestron	1	AMP-1200-70	mono 70V power amplifier	AV Contractor
Room 5104	Rack Dev/Audio	Crestron	1	ST-RMK	rack mount kit for AMP-1200-70	AV Contractor
Room 5104	Rack Dev/Video	Crestron	1	DMPS3-4k-100-C	DM presentation video switcher	AV Contractor
Room 5104	Field Dev/Control	Crestron	1	TSW-UMB-60	wall mount back box for touch panel	AV Contractor
Room 5104	Field Dev/Power	Surge X	1	SA-82	projector surge protector	AV Contractor
Room 5104	Lectern Dev/Furniture	Chief	1	K1W120 (x)	wall mount for Dell AIO PC, confirm color	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	MLM-WB+	wall mount lectern, white	AV Contractor
Room 5104	Lectern Dev/Power	xpcc	1	J60	UPS for AIO PC	AV Contractor
Room 5104	Rack Dev/Furniture	Middle Atlantic	1	UMS1-11.5	Blu ray Player UMS Rackshelf, 1 RU, 11.5"D	AV Contractor
Room 5104	Lectern Dev/Video	Sony	1	BDPS1700	Blu-Ray Player	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	70-344-02	UCM RAAP	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	70-090-11	Blank Plate - Single (Black)	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	70-402-11	One RJ-45 Female to Female Barrel - CAT 5e (Black)	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	70-101-73	One 15-pin HD Female to Female Gender Changer, One 3.5 mm Stereo Mini Jack to Solder Tabs (Black with Silkscreen)	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	70-616-12	One HDMI Female to Female on 10" Pigtail (Black)	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	70-103-18	One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik (Black)	AV Contractor
Room 5104	Lectern Dev/Furniture	Extron	1	60-1356-02	USB PowerPlate 200 AC AAP (One US AC, Double-space, Black)	AV Contractor
Room 5104	Rack Dev/Audio	Mersive	1	Solstice Pod	BYOD collaboration device	AV Contractor
Room 5104	Rack Dev/Power	Surge X	1	SX-1115-RT	15A rack surge protection	AV Contractor
Room 5104	Field Dev/Control	Crestron	1	USB-EXT	USB Extender kit	AV Contractor
Room 5104	Lectern Dev/Video	Dell	1	7450	AIO PC	Owner Furnished Contractor Installed
Room						

5106						
Room 5106	Field Dev/Video	Da-Lite	1	27978T	IDEA Panoramic white board projection screen - 46" x 144" w/full length marker tray	AV Contractor
Room 5106	Field Dev/Video	Epson	1	Bright Link 696Ui	Ultra Short Throw projector 1920 x 1200	AV Contractor
Room 5106	Field Dev/Audio	Extron	3	FF120T	1' x 2' drop ceiling speaker - 70V (sold in pairs)	AV Contractor
Room 5106	Field Dev/Control	Crestron	1	TSW-760-B-S	7" color touch panel, black	AV Contractor
Room 5106	Rack Dev/Audio	Crestron	1	AMP-1200-70	200 watt mono 70V power amplifier	AV Contractor
Room 5106	Rack Dev/Audio	Crestron	1	ST-RMK	rack mount kit for AMP-1200-70	AV Contractor
Room 5106	Rack Dev/Video	Crestron	1	DMPS3-4k-100-C	DM presentation video switcher	AV Contractor
Room 5106	Field Dev/Control	Crestron	1	TSW-UMB-60	wall mount back box for touch panel	AV Contractor
Room 5106	Field Dev/Power	Surge X	1	SA-82	projector surge protector	AV Contractor
Room 5106	Lectern Dev/Furniture	Chief	1	K1W120 (x)	wall mount for Dell AIO PC, confirm color	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	MLM-WB+	wall mount lectern, white	AV Contractor
Room 5106	Lectern Dev/Power	xpcc	1	J60	UPS for AIO PC	AV Contractor
Room 5106	Lectern Dev/Video	Sony	1	BDPS1700	Blu-Ray Player	AV Contractor
Room 5106	Rack Dev/Furniture	Middle Atlantic	1	UMS1-11.5	Blu ray Player UMS Rackshelf, 1 RU, 11.5"D	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	70-344-02	UCM RAAP	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	70-090-11	Blank Plate - Single (Black)	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	70-402-11	One RJ-45 Female to Female Barrel - CAT 5e (Black)	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	70-101-73	One 15-pin HD Female to Female Gender Changer, One 3.5 mm Stereo Mini Jack to Solder Tabs (Black with Silkscreen)	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	70-616-12	One HDMI Female to Female on 10" Pigtail (Black)	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	70-103-18	One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik (Black)	AV Contractor
Room 5106	Lectern Dev/Furniture	Extron	1	60-1356-02	USB PowerPlate 200 AC AAP (One US AC, Double-space, Black)	AV Contractor
Room 5106	Rack Dev/Audio	Mersive	1	Solstice Pod	BYOD collaboration device	AV Contractor
Room 5106	Rack Dev/Power	Surge X	1	SX-1115-RT	15A rack surge protection	AV Contractor
Room 5106	Field Dev/Control	Crestron	1	USB-EXT	USB Extender kit	AV Contractor
Room 5106	Lectern Dev/Video	Dell	1	7450	AIO PC	Owner Furnished Contractor Installed
Room 5113						
Room 5113	Field Dev/Video	Da-Lite	1	27975T	IDEA Panoramic white board projection screen - 50" x 144" w/full length marker tray	AV Contractor
Room 5113	Field Dev/Video	Epson	1	Bright Link 696Ui	Ultra Short Throw projector 1920 x 1200	AV Contractor
Room 5113	Field	Extron	3	FF120T	1' x 2' drop ceiling speaker - 70V (sold in pairs)	AV Contractor

	Dev/Audio					
Room 5113	Field Dev/Control	Crestron	1	TSW-760-B-S	7" color touch panel, black	AV Contractor
Room 5113	Field Dev/Control	Crestron	1	TSW-UMB-60	wall mount back box for touch panel	AV Contractor
Room 5113	Rack Dev/Video	Crestron	1	DMPS3-4k-100-C	DM presentation video switcher	AV Contractor
Room 5113	Field Dev/Power	Surge X	1	SA-82	projector surge protector	AV Contractor
Room 5113	Lectern Dev/Furniture	Chief	1	K1W120 (x)	wall mount for Dell AIO PC, confirm color	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	MLM-WB+	wall mount lectern, white	AV Contractor
Room 5113	Lectern Dev/Power	xpcc	1	J60	UPS for AIO PC	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	70-344-02	UCM RAAP	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	70-090-11	Blank Plate - Single (Black)	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	70-402-11	One RJ-45 Female to Female Barrel - CAT 5e (Black)	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	70-101-73	One 15-pin HD Female to Female Gender Changer, One 3.5 mm Stereo Mini Jack to Solder Tabs (Black with Silkscreen)	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	70-616-12	One HDMI Female to Female on 10" Pigtail (Black)	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	70-103-18	One XLR 3-pin Male to Solder Cups, One XLR 3-pin Female to Solder Cups - Neutrik (Black)	AV Contractor
Room 5113	Lectern Dev/Furniture	Extron	1	60-1356-02	USB PowerPlate 200 AC AAP (One US AC, Double-space, Black)	AV Contractor
Room 5113	Lectern Dev/Video	Sony	1	BDPS1700	Blu-Ray Player	AV Contractor
Room 5113	Rack Dev/Furniture	Middle Atlantic	1	UMS1-11.5	Blu ray Player UMS Rackshelf, 1 RU, 11.5"D	AV Contractor
Room 5113	Rack Dev/Audio	Crestron	1	ST-RMK	rack mount kit for AMP-1200-70	AV Contractor
Room 5113	Rack Dev/Audio	Mersive	1	Solstice Pod	BYOD collaboration device	AV Contractor
Room 5113	Rack Dev/Power	Surge X	1	SX-1115-RT	15A rack surge protection	AV Contractor
Room 5113	Field Dev/Control	Crestron	1	USB-EXT	USB Extender kit	AV Contractor
Room 5113	Lectern Dev/Video	Dell	1	7450	AIO PC	Owner Furnished Contractor Installed
Room 5205 IDF						
Room 5205 IDF	Rack Dev/Network	Cisco	1	Catalyst xxxx-xx	48 port POE switch	Not In Scope
Room 5205 IDF	Rack Dev/Network	Crestron	1	DM-CONN-ULTRA-RECP-50	Digital Media Ultra Keystone RJ45 jack w/tool - 50 pack	AV Contractor
Room 5205 IDF	Rack Dev/Network	Commscope	1	TE640PF-YL02 4-1499416-7	DM 8G+ standard cabling for UCCS Crestron DM signals	AV Contractor
Room 5205 IDF	Rack Dev/Network	Crestron	1	CEN-GWEXER	inFINET EX® & ER Wireless Gateway-Lighting Control	AV Contractor

End of Appendix