CITY OF FEDERAL WAY REQUEST FOR QUOTE

Audio Video and Communications Equipment

I. **PURPOSE OF REQUEST**

The City of Federal Way ("City") is requesting quotes for the purpose of Audio Video and Communications Equipment. The City's needs are outlined in the following Request for Quotes ("RFQ").

II. **TIME SCHEDULE**

The City will follow the following timetable, which should result in a selection of a contractor by June 7, 2017.

Issue RFQ	May 8, 2017
Deadline for Submittal of Quotes	May 19, 2017 3:00 PM
(The City welcomes submittals prior to deadline) Notify Contractor Chosen	June 7, 2017

III. INSTRUCTIONS TO PROPOSERS

A. All quotes shall be sent to:

Theresa Yvonne, Executive Director City of Federal Way 33325 8th Ave South Federal Way, WA 98003-6325 (253) 835-2414

- B. All quotes must be in a sealed envelope and clearly marked in the lower left-hand corner: RFQ Audio Video and Communications Equipment. All quotes must be received by 3:00 PM on Friday, May 19, 2017. Three (3) copies of the RFQ must be presented. No faxed or telephone quotes will be accepted.
- C. Quotes should be prepared simply and economically, providing a straightforward, concise description of provider capabilities to satisfy the requirements of the request. Special bindings, colored displays, promotional materials, etc., are not desired. Emphasis should be on completeness and clarity of content. Use of recycled paper for requests and any printed or photocopied material created pursuant to a contract with the City is desirable whenever practicable. Use of both sides of paper sheets for any submittals to the City is desirable whenever practicable.
- D. The Executive Director or representative will notify the contractor selected by June 7, 2017.

E. All quotes must include the following the guidelines stated in Appendix A – Part 2.

IV. SELECTION CRITERIA

Factor	Weight Given
1. Responsiveness of the written proposal to the purpose and scope of service.	25%
2. Price.	50%
3. Ability and history of successfully completing contracts of this type, meeting projected deadlines and experience in similar work.	25%
Total Criteria Weight	100%

Each quote will be independently evaluated on factors 1 through 3.

V. TERMS AND CONDITIONS

- A. The City reserves the right to reject any and all quotes, and to waive minor irregularities in any quote.
- B. The City reserves the right to request clarification of information submitted, and to request additional information from the contractor.
- C. The City reserves the right to award the contract to the next most qualified contractor, if the successful contractor does not execute a contract within thirty (30) days after the award of the quote.
- D. Any quote may be withdrawn up until the date and time set above for opening of the quotes. Any quote not so timely withdrawn shall constitute an irrevocable offer, for a period of ninety (90) days to sell to the City the services described in the attached specifications, or until one or more of the quotes have been approved by the City administration, whichever occurs first.
- E. The contract resulting from acceptance of a quote by the City shall be in a form supplied or approved by the City, and shall reflect the specifications in this RFQ. A copy of the contract is available for review, and shall include requirements to comply with ADA, Civil Rights Act, and EEO requirements. The City reserves the right to reject any proposed agreement or contract that does not conform to the specifications contained in this RFQ, and which is not approved by the City Attorney's office.

- F. The City shall not be responsible for any costs incurred by the contractor in preparing, submitting or presenting its response to the RFQ.
- G. The Recipient, in accordance with Title VI of the Civil Rights Act of 1964, 78 Stat. 252, 42 U.S.C. 2000d to 2000d-4 and Title 49, Code of Federal Regulations, Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-Assisted Programs of the Department of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively ensure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises as defined at 49 CFR Part 23 will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, national origin, or sex in consideration for an award.

VI. SCOPE OF SERVICES

- A. Follow specifications as outlined in AV Systems FFE, Appendix A.
- B. The following appendices are attached to this specification.
 - i. Appendix B 274117A Equipment List.
- C. Completion
 - i. The City desires that this work be completed by Friday, June 30, 2017. Please provide date of completion in quote.

VII. COMPENSATION:

- A. Please present pricing information on the contractor's proposed quote for the equipment specified in Appendix B with totals for all equipment listed and for any variation for non-routine services, inclusive of Washington state sales tax, and any other applicable governmental charges. Please provide specifics as to definitions of routine versus non-routine tasks, what is fixed as opposed to variable, and how costs are adjusted according to that classification.
- B. Payment by the City for the services will be made only after the services have been performed, an itemized billing statement is submitted in the form specified by the City, and approved by the appropriate City representative, which shall specifically set forth the services performed, the name of the person performing such services, and the hourly labor charge rate for such person. Payment shall be made on a monthly basis, thirty (30) days after receipt of such billing statement.

VIII. **PUBLICATION**.

Name of Publication:Dates:Federal Way MirrorMay 12, 2017

Puget Sound Business Journal

May 12, 2017

City of Federal Way Website <u>www.cityoffederalway.com</u>

May 9, 2017 thru May 19, 2017

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PART 1 - GENERAL

1.1 SUMMARY:

- A. Section Includes: Services as listed herein and related to the furnishing, installation, and commissioning of audio, video and communications equipment.
- B. Related Documents: The Conditions of the Contract and Division 01 General Requirements apply to this section as fully as if repeated herein.
- C. Related Sections: Coordinate with the following sections in carrying out this work:
 - 1. Section 27 41 16 Base Bid AV Systems
- D. Line-Item Pricing: Provide line-item pricing for each item in the equipment list.

1.2 REFERENCES:

- A. Equipment shall be provided in accordance with the related trade and regulatory guidelines including but not limited to UL, NEC, IEEE, and all manufacturer's recommendations and requirements. Contractor shall be responsible in the event that work under their control voids or jeopardizes manufacturers' warranties.
- B. Labor shall be provided in accordance with applicable labor regulations and practices.

1.3 DEFINITIONS:

- A. Refer to the General Conditions for definitions.
- B. Architect: For the scope in this Section, authorized personnel representing Owner and the Theater Consultant.
- 1.4 ADD/ALTERNATES
 - A. Add/Alt #AV1: Wireless Intercom
 - B. Add/Alt #AV2: Wireless Microphones
- 1.5 SYSTEM DESCRIPTION:
 - A. Portable Equipment
 - 1. Provide portable equipment as listed in the equipment list.
 - 2. Provide and install all flat panel displays and configure for proper operation. Provide F to F cable, and setup displays to show the modulated QAM channels provided under the base scope.
 - a. Install digital signage players at lobby displays, and coordinate configuration of the players with owner's forces.
 - 3. Provide effects speakers with manufacturer-supplied yoke bracket and two cast-iron cclamps. Install the c-clamps on the yokes and install the yokes on the speakers. Deliver complete and ready-to-hang.

- 4. On all loose cables, provide a color heatshrink label or engraved shell reading "Federal Way PAEC", and an affixed Velcro cable tie. Color of heatshrink or connector boot shall determine length. Patchcords need not be labeled. Use the following color scheme:
 - a. 10' or less: White
 - b. 25': Orange
 - c. 50': Green
 - d. 100': Red
- B. Video Projection
 - 1. Main Theatre
 - a. Provide a 13,000-lumen laser-source projector with 3-chip DLP imaging system.
 - b. Provide proper zoom lens as needed to fill screen (screen provided in base scope).
 - c. Installation and commissioning of the projector is included in the base AV contract.
 - 2. Meeting Rooms
 - a. Provide two 8,500-lumen laser-source projectors with 1-chip DLP imaging system.
 - b. Provide proper zoom lenses as needed to fill screens (screen provided in base scope).
 - c. Installation and commissioning of the projectors is included in the base AV contract.
- C. Alternate AV1: Wireless Intercom
 - 1. Configure wireless intercom as needed for proper operation. Install base station at onstage equipment rack. Mount antenna panels outside of rack, to ensure proper operation when front door is closed.
 - 2. Coordinate with base AV contractor for proper interconnection point to wired intercom system.
- D. Alternate AV2: Wireless Microphones
 - 1. Completely assemble portable wireless microphone package using parts specified, and configure transmitters & receivers for proper operation.
 - a. Connect network ports on all receivers to a network switch in the rack. Configure unique, sequential IP addresses for each receiver.
 - b. Provide software for IP-based management to owner.
 - c. Provide rack-mount BNC panel to allow this portable rack to use local remote antennas, or connect to the facility antenna system (provided under base package).
 - d. Mount battery chargers to two slide-out shelves, and gang in two rows of three on each shelf.
- 1.6 CURRENT TECHNOLOGY:

- A. Only the most current hardware and software shall be provided. In no case will discontinued or superseded products be acceptable. If the manufacturer has developed and successfully released products that meet or exceed the criteria within this specification, the Contractor shall notify the Architect and submit the new product for review. If accepted, the products shall be provided at no additional cost to the Owner. Software upgrades and authorized support services for its proper integration into the system shall be provided at no cost to the Owner throughout the warranty period.
- B. In the event of known product defaults or recall, the Contractor shall immediately notify the Architect and make immediate arrangements for remedy.
- C. None of the stipulations herein shall be grounds for revision to the Project schedule.
- D. See related procedures under Warranties in this Section.
- 1.7 SUBSTITUTIONS:
 - A. All requests for substitutions from the specified materials, assemblies or related services shall be submitted for review by Owner in accordance with Section 01 25 00 – Substitution Procedures. Requests shall be made in a timely fashion so as to not affect the Project schedule in either case of the substitution being accepted or rejected.
 - B. Documentation for the substitution shall be submitted with supporting material and shall including the related information for the item as specified so that equivalence can be demonstrated. The burden of proof rests solely upon the Contractor. The Owner shall be the sole evaluator of the fitness of the substitution.
 - C. All expenses related to the substitution including, but not be limited to, all fees and expenses incurred in the evaluation of the substitution, and any effect on the costs and schedule of other trades whether or not the substitution is accepted, shall be borne by the Contractor.
- 1.8 SUBMITTALS:
 - A. If permitted under Section 01– Submittal Procedures, all submittals shall be made in electronic format.
 - 1. Files shall be in .pdf format, and submitted via CD or DVD.
 - 2. Clearly indicate submittal number and description in the file name of the document.
 - 3. Each document shall be a separate file.
 - 4. Markups will be made electronically, and the submittal returned via CD or DVD.
 - B. Submittals shall be made in a timely fashion so as to not affect the Project schedule, and shall allow for adequate time for review and resubmittal. Partial submittals will not be acceptable and will be returned without review.
 - C. Submittals shall be reviewed and field dimensions verified prior to commencing acquisition for, and fabrication of the Work in this section. All services and parts of the work in this section shall be verified through the submittal process.
 - D. Shop Drawings:
 - 1. Submit full-size (minimum 30" x 42") scaled shop drawings that show the following:
 - a. Equipment rack and patchpanel drawings.

- b. Detailed equipment list, including quantity, manufacturer and model.
- 2. Acceptance of any submitted data or shop drawings for material, equipment, apparatus, devices, arrangement and layout shall not relieve contractor from responsibility of furnishing same of proper dimensions and weight, capacities, sizes, quantity, and installation details to perform efficiently the requirements and intents of the systems design. Such acceptance shall not relieve the contractor from responsibility for error, omissions or inadequacies of any sort on submitted data or shop drawings.
- E. Product Data:
 - 1. Submit a detailed equipment list, including manufacturer, model number, description and quantity for each item.
 - 2. Do not submit equipment cut sheets, except for custom or non-standard devices.
- F. Record Documents: Submit record documents in accordance with Section 01.
 - 1. At time of final acceptance, submit regulatory listings and certifications as required by prevailing building codes.
 - 2. Submit copies of "as-builts" including:
 - a. Equipment list, with manufacturer, model number, and serial number for all installed devices.
 - b. Care and maintenance instructions, service line and online contacts.
 - c. Warranty documents.
- G. Submittal procedures and quantities are specified in Section 01– Submittal Procedures.
- 1.9 WARRANTY:
 - A. Warranty shall provide coverage of material and product defects and assembly workmanship or installation for a period of two years following the date of acceptance by the Architect.
 - B. Items under warranty shall be serviced to the satisfaction of the Owner with 14 days of notification to the Contractor.
 - C. The Contractor shall bear all costs that arise as a result of the warranty claim, including, but not limited to, the use of temporary replacement components, additional Owner staffing or overtime, shipping, cancelled uses or performances.
 - D. Activate all manufacturers' warranties in the name of the Owner, within one week of the date of acceptance.
 - E. Provide two return visits following system acceptance to fine tune or repair any items requested by the Owner:
 - 1. 30-40 days following acceptance
 - 2. 1 year following acceptance
- 1.10 QUALITY ASSURANCE:
 - A. Equipment in this Section shall be provided by specialty subcontractors and manufacturers meeting the qualifications listed herein.

- B. Specialty subcontractor shall have been continuously engaged in the sales and integration of audio, video and communications equipment similar to that specified herein for a minimum of 10 years.
- C. Specialty subcontractors shall have at time of bid and continuously maintain throughout the project and warranty period a low voltage Specialty Contractor's license appropriate for the work in this Section.
- D. Specialty subcontractors shall employ field service technicians within a four hour driving distance from the Project site.
- E. All equipment shall be UL listed and bear the appropriate labels.
- 1.11 DELIVERY, STORAGE AND HANDLING:
 - A. Packing shall prevent damage to the equipment during transit. Costs to repair or replace all equipment damaged during the course of the contract services shall be borne by the Contractor.
 - B. Do not deliver materials in this Section until building is ready for installation. Contractor is responsible to properly sequence the work and to protect from damage during delivery, handling, storage and installation.
 - C. Contractor is responsible to coordinate and provide secure and protected storage as required for the execution of the Contract.
 - Devices shall not be delivered to the project site until the project is suitably clean and all adjacent finish work that may be painted or produce dust has been completed. The contract shall provide and maintain complete protection of all devices until the Project has been made available for occupancy by the Owner. The contractor shall thoroughly clean and remove any dirt or dust that infiltrates system components and be responsible for timely replacement of any damaged components.
 - 2. Device labels and connectors shall be delivered with temporary dust and paint protection installed.

1.12 PROJECT CONDITIONS:

- A. Defects in the field which may impact the work in this Section shall be reported to the Architect and corrected in accordance with the requirements of the applicable Section of Work prior to commencement of the Work in this Section.
- 1.13 MAINTENANCE:
 - A. Provide maintenance stock of user-serviceable components within the system. Maintenance stock shall be packaged in labeled long term storage packaging and turned over to the Owner at time of system commissioning.

PART 2 - PRODUCTS

- 2.1 PRE-APPROVED SPECIALTY SUBCONTRACTORS
 - A. The following AV systems contractors are pre-approved to complete the work in this section:

Jaymarc-AV Attn: Mark Bellesiles 2732 1st Ave S Seattle, WA 98134 206.682.6111

CompView Audio Visual Attn: Deborah Klein 652 Industry Drive Tukwila, WA 98188 206.805.3225

Delta AV Attn: David Garlett 4040 SE International Way, #E106 Milwaukie, OR 97222 503.786.3733

Morgan Sound Attn: Charlie Morgan 2004 196th St. SW; Suite #2 Lynwood, WA 98036 425.771.7257

- B. All other shall submit qualifications for approval. In order to qualify, the contractor shall submit the following information to the Owner for review:
 - 1. Five years of financial reports.
 - 2. List of personnel who will be working on this Project, including skills, experience, and accreditations.
 - 3. List of union affiliations, contractor licenses, and other applicable trade certifications.
 - 4. List of projects completed within the past 5 years, with references. Provide phone and/or e-mail addresses for reference contacts.
 - 5. Proof that at least 5 jobs in the past 5 years have a minimum contract value equal to or greater than the project listed herein.
 - 6. Proof of bonding and insurance.

2.2 MANUFACTURERS:

- A. AV equipment in this Section shall be provided by specialty manufacturers providing products meeting the specifications herein.
- B. Provide all equipment as listed in 274116-A, equipment list.

2.3 MATERIALS:

- A. All components supplied under this Section shall be new. Used or factory reconditioned components will not be acceptable.
- B. Connectors:
 - 1. Microphone and Line Level Audio
 - a. XLR-M, 3-pin:

- 1) For panel-mount, Provide Neutrik NC3MD-L-1, 3-pole male XLR connector in black.
- 2) For cable-end, provide Neutrik NC3MXX, 3-pole male connector.
- b. XLR-F, 3-pin, Standard
 - 1) For panel-mount, Provide Neutrik NC3FD-L-1, 3-pole female XLR connector in black.
 - 2) For cable-end, provide Neutrik NC3FXX, 3-pole female connector.
- c. XLR-F, 3-pin, Automixing (BLUE)
 - 1) For panel-mount, Provide Whirlwind WC3F, 3-pole female XLR connector in blue color shell.
 - 2) No colored trim rings allowed, such as Neutrik.
- d. 1/4" Tip/Ring/Sleeve
 - 1) For panel-mount, Provide Neutrik NJ3FP6C, locking tip/ring/sleeve connector.
 - 2) For cable-end, provide Neutrik NP3X, tip/ring/sleeve connector.
- e. Phono
 - 1) For panel-mount, Provide Neutrik NF-2D series, with appropriate color isolation washer.
 - 2) For cable-end, provide Neutrik NF2C-B-2 "Profi" connector.
- 2. Production Intercom:
 - a. XLR-M, 3-pin, Intercom (RED)
 - 1) For panel-mount, Provide Whirlwind WC3M, 3-pole male XLR connector in red color shell.
 - 2) No colored trim rings allowed, such as Neutrik.
- 3. Integrated Control Systems:
 - a. For panel-mount in configurations using legacy data and power bus (AxLink or Cresnet), provide Neutrik NC4FD-L-1, 4-pole female XLR connector.
 - b. For panel-mount in configurations using networked control bus, refer to RJ-45 data information below.
 - c. Cable-end configurations are project dependent. See drawings.
- 4. Loudspeaker:
 - a. For panel-mount in 2 or 4-conductor applications, use Neutrik Speakon NL4MP 4pole connector.
 - b. For panel-mount in 8-conductor applications, use Neutrik Speakon NL8MPR 8pole connector.
 - c. For cable-end in 2 or 4-conductor applications, use Neutrik Speakon NL4FC 4pole connector.
 - d. For cable-end in 8-conductor applications, use Neutrik Speakon NL8FC 8-pole connector.
- 5. Video:

- a. Production Video:
 - 1) For panel-mount, Provide Neutrik NBB75DFIB, Recessed bulkhead jack, feed through, isolated connector.
 - 2) For cable-end, provide Neutrik NBNC75P-series, push-pull style connector. Use appropriate connector for cable specified.
- b. "F" Connector:
 - 1) For panel-mount, provide Cencom GF81 inline barrel connector with 1 GHz minimum performance.
 - 2) For cable-end, provide Cencom Superlock compression connector with 1 GHz minimum performance.
- 6. Data:
 - a. RJ-45
 - 1) For panel-mount, provide Neutrik Ethercon NE8FDP-B feed-thru connector in black.
 - 2) For cable end, provide Neutrik Ethercon NE8MC-series connectors.
 - b. Fiber
 - 1) For panel-mount, provide Neutrik Opticalcon NO2-4FD feed-thru panel mount connectors.
 - 2) For cable end, provide Neutrik Opticalcon cables in quantities shown in 274116-A equipment list.

PART 3 - EXECUTION

3.1 INSTALLATION- GENERAL:

- A. Coordinate with Division 26 Electrical for the proper installation of the conduit, backboxes, and electrical service as specified herein.
- B. Coordinate scheduling and access with the Contractor and provide personnel lifts or ladders as required for access to the AV equipment.
- C. Remove all packing materials from the Project Site. Insert operations and maintenance information into the Project record documents as specified above in Submittals.
- D. Record Block Diagram: Post a laminated 11x17 as-built block diagram of the entire system (split into multiple sheets as necessary), and physically attached to the equipment rack in a logical location for Owner reference.

3.2 PROTECTION OF PROPERTY:

A. Contractor is responsible to provide protection for all equipment, tools and materials delivered to the Project Site prior to final acceptance by Owner. Any loss or damage is the responsibility of the contractor, until final acceptance by Owner.

3.3 SEQUENCING:

- A. The contractor shall not install any electronic equipment until the room where the equipment shall be located has been finally painted or otherwise finished, and cleaned by the Contractor or Owner's Representative. Any damage to equipment resulting from failure to follow this requirement will result in the contractor replacing the damaged equipment at their cost.
- 3.4 COMMISSIONING AND DEMONSTRATION:
 - A. Coordinate with Division 26 Electrical.
 - B. Appropriately trained personnel shall review, test, program and otherwise complete the system, following completion of installation.
 - C. Upon completion of the installation, the Contractor shall notify the Architect that the system is available for formal checkout. Notification shall be provided in writing. Checkouts shall be scheduled in accordance with the Architect's schedule.

3.5 TRAINING:

- A. Training shall include, but not be limited to:
 - 1. Safety precautions.
 - 2. Identification of all elements provided under this section.
 - 3. Maintenance, diagnostics and trouble shooting.
 - 4. Operation of system, including necessary software training.
 - 5. Operations and maintenance manual orientation.
- B. Provide 8 hours of training, minimum, split over two consecutive days.

3.6 PROJECT CLOSEOUT:

- A. See submittal section above for required closeout documents.
- 3.7 APPENDIX:
 - A. 27 41 17-A Equipment List

Federal Way PAC AV Systems- FF&E Equipment List Appendix B - Section 274117A

Notes: 1. Conduit, backboxes and electrical power required for A/V systems are provided under division 16 work.

- 2. This list contains key components, but does not list every piece needed for a complete system.
 - Contractor is responsible to provide a complete and working sytem, regardless of the completeness of this list.
- 3. A/R= As Required
- 4. OFCI= Owner Furnished, Contractor Installed

REF	DESCRIPTION	MFR	MODEL	QTY	NOTES
	PORTABLE EQUIPMENT				
1VI	Production Intercom				
2VI	Heavy-Duty Headset	Clear-Com	CC-300	10	
3VI	Wired Beltpack, 1-channel	Clear-Com	RS-701	10	
4VI	Handset	Clear-Com	HS-6	2	
5VI	Microphones & DI				
6VI	Handheld Microphone	Shure	SM58	8	
7VI	Handheld Microphone, switched	Shure	SM58 Switched	2	
8VI	Handheld Microphone	Shure	SM57	4	
9PE	Handheld Microphone, condenser	Shure	Beta 87a	4	
10PE	Condenser Microphones, small	Shure	KSM-137	2	
11PE	Hanging Choir Mic	Audio Technica	ES933C	4	
12PE	Podium Mic w/ weighted base	Audio Technica	U857QL / AT8615	2	
13PE	Boundary Mics	Crown	PCC-160	4	
14PE	PZM Mic	Crown	PZM-30D	2	
15PE	DI Box, passive	Whirlwind	IMP2	4	
16PE	Dual DI Box, passive, PC	Whirlwind	PcDI	2	
17PE	Mic Case, 12-hole with cable storage	SKB	1SKB-1200	1	

REF	DESCRIPTION	MFR	MODEL	QTY	NOTES
18PE	Video Equipment				
19PE	LCD Color Monitor & Receiver, 26" with CATV tuner	A/R	A/R	6	
20PE	26" LCD monitor wall mount, swing arm	Chief Mfg	A/R	6	or equal
21PE	LCD Color Monitor & Receiver, 65" with CATV tuner	Samsung	A/R	4	
22PE	65" LCD monitor wall mount, tilt-down	Chief Mfg	A/R	4	or equal
23PE	Digital Signage Player	Brightsign	XD233	4	
24PE	HD Color Camera, Fixed	Marshall	CV340-CSB	1	
25PE	HD Color Camera Lens	A/R	A/R	1	wide lens for conductor camera
26PE	Color Camera Mount- C-Clamp	Omnimount	A/R	1	
27PE	Test Gear				
28PE	Tone Generator, Audio	NTI / Neutrik	MR2 Minirator	1	
29PE	Mic/Line Tester	Whirlwind	Q-Box	1	
30PE	Cable Multi-Tester	Whirlwind	DCT-9	1	
31PE	Test Gear Carry Case	Pelican	A/R	1	
32PE	Accessories				
33PE	Multichannel Audio- 8-ch Sub Snake, 50'-0", stage box	Whirlwind	Medusa Series	2	
34PE	Powered Loudspeaker, Booth Monitor	JBL	LSR 305	1	pair
35PE	Portable Stage Monitors, Powered	QSC	K12	4	provide padded storage cases
36PE	Portable Stage Monitors, Powered, Stands	Ultimate Support	TS-99BL	4	provide storage bags
37PE	Portable Effects Speakers, small	JBL	AC16	4	provide yokes with C-Clamps
38PE	Portable Effects Speakers, large	JBL	AC2212	4	provide yokes with C-Clamps
39PE	Table-top mic stand, round base	Atlas Sound	DMS-7E	4	
40PE	Standard round-base mic stand, Black	Atlas Sound	MS10CE	10	
41PE	Tripod mic stand w/ boom, Black	K & M	210/8	10	
42PE	AV Adapter Kit	Tecnec	AV-KIT/44CAB	1	
43PE	Cotton Tie Line, Black, 600' roll, 1/8" black, unglazed	Musson Theatrical	A/R	1	
44PE	Headphones	Sony	MDR-7506	2	
45PE	24RU ATA-style rolling case filled w/ 3 & 4RU drawers	Anvil/ATA	A/R	1	drawers w/ foam lined bottom
46PE	ATA-style rolling cable/stand trunk	Anvil/ATA	A/R	1	carpet lined

REF	DESCRIPTION	MFR	MODEL	QTY	NOTES
47PE	Cables				
48PE	NOTE: Provide color heatshink label or engraved shell on all cal	bles reading "Federal Wa	ay PAEC". Color / boot o	denotes le	ngth.
49PE	NOTE: Provide velcro cable ties on all cables.				
50PE	NOTE: Provide unique number on each end of cable to allow ide	entification in a bundle.			
51PE	Mic / Intercom Cable, 10'	Whirlwind	MK410	10	
52PE	Mic / Intercom Cable, 25'	Whirlwind	MK425	40	
53PE	Mic / Intercom Cable, 50'	Whirlwind	MK450	20	
54PE	Mic / Intercom Cable, 100'	Whirlwind	MK4100	4	
55PE	1/4" to 1/4" instrument cable, 6'-0"	Whirlwind	L6	10	
56PE	Loudspeaker Cable, 5'	Whirlwind	NL4-005	5	
57PE	Loudspeaker Cable, 10'	Whirlwind	NL4-010	10	
58PE	Loudspeaker Cable, 25'	Whirlwind	NL4-025	10	
59PE	Loudspeaker Cable, 50'	Whirlwind	NL4-050	5	
60PE	Combo Power/Audio Cable, 50'-0"	ProCo Sound	EC9-50	4	
61PE	Power Cable, 14AWG, 25'-0" black	Contractor	A/R	10	
62PE	Power Cable, 14AWG, 50'-0" black	Contractor	A/R	10	
63PE	BNC Video Cable, 10'	Whirlwind	VID-BNC3-B-10	4	
64PE	BNC Video Cable, 25'	Whirlwind	VID-BNC3-B-25	10	
65PE	BNC Video Cable, 50'	Whirlwind	VID-BNC3-B-50	4	
66PE	F CATV Video Cable, 25'	A/R	A/R	10	
67PE	VGA & Audio Extension Cables, 25'	Extron	MVGA-A M-M/25	10	
68PE	HDMI Extension Cables, 25'	Extron	HDMI Pro/25	10	
69PE	Network Patch Cable, Yellow, 3'	Contractor	A/R	15	
70PE	Audio Patch Cable, Red, 3'	AVP	LPC-3-RED	40	
71PE	Video Patch Cable, Blue, 3'	AVP	VPC-3-BLUE	20	
72PE	Loudspeaker Patch Cable, 4-cond, Black, 3'	Whirlwind	NL4-003	20	
73PE	Loudspeaker Y Cable, 4-cond.	Whirlwind/Custom	Custom	4	

	DESCRIPTION	MFR	MODEL	QTY	NOTES
	VIDEO PROJECTION			Ť	
1PE	Projection - Main Theatre				
2PE	Video Projector, 13k lumen, 1920x1200, 3-chip DLP, Laser	Digital Projection	HIGHLite LASER II	1	
3PE	Video Projector Lens	Digital Projection	A/R	1	
4PE	Projection- Meeting Rooms				
5PE	Video Projector, 8.5k lumen, 1900x1200, 1-chip DLP, Laser	Digital Projection	E-Vision LASER 8500	2	
6PE	Video Projector Lens	Digital Projection	A/R	2	
PC	DRTABLE EQUIPMENT - ALT AV1 - WIRELESS COMMUNICA	TIONS			
1PE	Production Intercom				
2PE	Wireless Intercom System, 4-pack	Clear-Com	CZ-DX410-4UP	1	Base, 4 beltpacks, 8 batteries, 5 headsets, charger
3PE	Antenna Panel for Wireless Com	Clear-Com	RMK-200	1	w/ (2) 6' remote cables RP-TNC to RP-TNC
	PORTABLE EQUIPMENT - ALT AV2 - WIRELESS MICROPHO	NES			
1PE	Portable Wireless Mic System				
2PE	Rackmount Light/Power Unit	Furman	PL-8C	1	
2PE 3PE	Rackmount Light/Power Unit Wireless Mic Handheld TX & RX	Furman Shure	PL-8C QLXD24/SM58	1	
3PE	Wireless Mic Handheld TX & RX	Shure	QLXD24/SM58	8	color TBD
3PE 4PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX	Shure Shure	QLXD24/SM58 QLXD1	8	color TBD
3PE 4PE 5PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element	Shure Shure Countryman	QLXD24/SM58 QLXD1 B3	8 8 10	color TBD
3PE 4PE 5PE 6PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered	Shure Shure Countryman Shure	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874	8 8 10 2	color TBD
3PE 4PE 5PE 6PE 7PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution	Shure Shure Countryman Shure Shure	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL	8 8 10 2 3	color TBD
3PE 4PE 5PE 6PE 7PE 8PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU Network Switch, Gigabit, Rack Mount, 12-port	Shure Shure Countryman Shure Shure Shure Middle Atlantic Cisco	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL A/R	8 8 10 2 3 2	color TBD
3PE 4PE 5PE 6PE 7PE 8PE 9PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU	Shure Shure Countryman Shure Shure Shure Middle Atlantic	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL	8 8 10 2 3 2 2 2	
3PE 4PE 5PE 6PE 7PE 8PE 9PE 10PE 11PE 12PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU Network Switch, Gigabit, Rack Mount, 12-port CAT6 patch cable Antenna Input Panel	Shure Shure Countryman Shure Shure Shure Middle Atlantic Cisco A/R Contractor	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL A/R	8 8 10 2 3 2 2 2 1	rear rails
3PE 4PE 5PE 6PE 7PE 8PE 9PE 10PE 11PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU Network Switch, Gigabit, Rack Mount, 12-port CAT6 patch cable	Shure Shure Countryman Shure Shure Shure Middle Atlantic Cisco A/R	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL A/R A/R	8 8 10 2 3 2 2 2 1 8	rear rails connect receivers to switch
3PE 4PE 5PE 6PE 7PE 8PE 9PE 10PE 11PE 12PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU Network Switch, Gigabit, Rack Mount, 12-port CAT6 patch cable Antenna Input Panel	Shure Shure Countryman Shure Shure Shure Middle Atlantic Cisco A/R Contractor	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL A/R A/R Custom	8 8 10 2 3 2 2 2 1 8 8 1	rear rails connect receivers to switch
3PE 4PE 5PE 6PE 7PE 8PE 9PE 10PE 11PE 12PE 13PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element &-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU Network Switch, Gigabit, Rack Mount, 12-port CAT6 patch cable Antenna Input Panel Wireless Mic Antenna Coax Cable, 25'-0"	Shure Shure Countryman Shure Shure Shure Middle Atlantic Cisco A/R Contractor Contractor	QLXD24/SM58QLXD1B3SBC800-USUA 844UA 874SSLA/RA/RCustomCustom	8 8 10 2 3 3 2 2 2 1 1 8 1 2	rear rails connect receivers to switch
3PE 4PE 5PE 6PE 7PE 8PE 9PE 10PE 11PE 12PE 13PE 14PE	Wireless Mic Handheld TX & RX Wireless Mic Bodypack TX Wireless Mic Lavaliere Element 8-port battery charger Antenna Distribution Antennas, Powered Slide-Out drawer for Battery Chargers, 1RU Network Switch, Gigabit, Rack Mount, 12-port CAT6 patch cable Antenna Input Panel Wireless Mic Antenna Coax Cable, 25'-0" Portable Case, Anvil/ATA style, wheels, 20RU	Shure Shure Countryman Shure Shure Shure Middle Atlantic Cisco A/R Contractor Contractor Anvil/ATA	QLXD24/SM58 QLXD1 B3 SBC800-US UA 844 UA 874 SSL A/R Custom Custom A/R	8 8 10 2 3 2 2 2 1 8 8 1 2 1	rear rails connect receivers to switch