MONTGOMERY COLLEGE - OFFICE OF BUSINESS SERVICES REQUEST FOR BID TITLE: AUDIO CONSULTANT SERVICES BID NUMBER: E923-004 BID OPENING DATE AND TIME: March 24, 2023 @ 3:00 PM



# ADDENDUM #1

Issued: March 20, 2023

## PURPOSE OF ADDENDUM:

 To provide answers to all vendor questions received by the question submittal deadline. See following page/s.

All other specifications, terms and conditions remain unchanged.

TACI

**Patrick Johnson, MBA** Director of Procurement

Please **sign** below to acknowledge receipt of this Addendum and return with the proposal. Failure to return this Acknowledgement of Addendum may deem a proposal nonresponsive.

**NOTE:** ACKNOWLEDGEMENT OF RECEIPT OF BID ADDENDA WILL NOT BE ACCEPTED BY FACSIMILE OR E-MAIL.

Company Name	Authorized Signature
Date	Printed/Typed Signature

# MONTGOMERY COLLEGE - OFFICE OF BUSINESS SERVICES REQUEST FOR BID TITLE: AUDIO CONSULTANT SERVICES BID NUMBER: E923-004 BID OPENING DATE AND TIME: March 24, 2023 @ 3:00 PM

### ADDENDUM #1

# Issued: March 20, 2023

**Questions and Answers** 

Vendor Question	Montgomery College Answer
Will there be an opportunity to do an initial walk through of the facilities prior to bid submission? To our understanding, you know your audio needs and have already developed a list of specifications for the project. However, you'd like our consultant who will add feedback and suggestions to the specifications, add appropriate model numbers for equipment specified, etc. Thus, to confirm, our budget should only include our consultant fees, excluding the cost of equipment, correct?	Possibly, but it may not be necessary, given the consultant is assisting with the design from the ground up. Correct. Consultant will assist with the design using our specs as a starting point and creating drawings that will be sent on another bid for equipment purchase and installation.
Section 2.2 states: "The consultant will add feedback and suggestions to the specifications, add appropriate model numbers for equipment specified, develop a full set of drawings including signal flow and equipment locations, which will be included as a part of a bid for purchase and installation of the new Audio system." Our team is also equipped to fulfill purchase and installation of the new audio system. Should we include the cost of services within this bid or will a separate solicitation be issued for that work? Could you provide the scope of work required for the installation?	The College will solicit equipment purchase and installation once design elements and drawing specified.
Is the timeframe of the work a	It is anticipated that consultant service will
calendar year or academic year?	commence within a few weeks after solicitation closing date.
What is Montgomery College's budget for this project?	That information is not available

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Is there an incumbent vendor for this project? No Would you prefer the budget is based on an hourly rate or a monthly retainer with a capped number of hours, considering this role will be throughout the duration of the audio equipment installation? To be completed by June 30, 2023. Is there a REVIT model and/or AutoCAD drawings available to be used by the selected designer? The tech staff will have to search to see if there is a section. Is there any information that can be provided about the audio system requirements, performance parameters, equipment lists, or design documentation? No Will the successful Audio Consultant be allowed to provide any products, equipment, or installation services for this project? Will stamped/sealed drawings be required from the Audio Consultant team for structural mounting, electrical/architectural changes, or any other licensed services? Or will any such modifications be handled by the College? S30. No Balcony or Mezzanine		
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# 

#### **Parilla PAC Audio System Requirements**

#### **Brief Description:**

Montgomery College has need for a new and state of the art house audio system for its Performing Arts Center (PAC) Located on the Rockville campus. The Performing Arts Center is a state of the art, live performance venue that services college events, college theatrical performances, outside community events and performances, and hosts world famous theatrical acts from all over the world. The system shall be capable of providing state of the art audio for all events held in the performing arts center and as such shall be versatile and professional, meeting the needs of a range of events that include meetings, plays, musicals, concerts, film screenings, as well as professional touring events.

The full replacement of the house audio system shall include new and upgraded electrical components, equipment racks, wiring, amplifiers, distribution points, speaker cabinets, control interfaces, switchgear, wireless equipment, consoles, etc.

Vendors, whom are awarded the Bid, will need to work in conjunction with the Performing Arts Center designated Sound Designer on all types of equipment selected as well as schedule for installation. The PAC will remain open for the season, however dedicated times for contractors to complete installation will be granted. It needs to be understood that since the venue will not be "Shut Down" all work must be completed in a neat, clean and tidy way. Attention to Dust and Debris must be managed throughout the installation. Final placement of all conduit, Cable runs, Switchgear, outlets, Speakers, equipment racks etc. will need to be coordinated with the Center's Production Manager to minimize the profile and maximize operational needs of the venues.

#### **Scope of Work**

#### **Electrical Systems:**

The Vendor will need to install an upgraded electrical system in order to provide power to the new sound system. The electrical contractors must be proficient in high voltage electrical work, be licensed and insured, fluent in county and state codes and guidelines and be capable of commercial installation work.

The electricians will need to tap the stage left electrical mains located at the Stage left 400amp company switch disconnect, and install a suitable electrical panel in the amplifier room. Distributed 20 amp circuits to power the sound system shall be run in conduit, painted black in all areas that are visible to the audience and performers, and be terminated in quad boxes (4 outlets per circuit drop). Conduit runs may not impede any of the theatrical or operational systems of the building. Outlets should all be of a matching color that is not white or cream so as to distinguish them as a part of the "sound system" electrical installation.

Circuits will need to be run at the following locations.  $2 \times 20$  amp circuits Stage Left,  $2 \times 20$  amp circuits Stage right,  $2 \times 20$  amp circuits on the up stage wall,  $4 \times 20$  amp circuits in the control booth,  $10 \times 20$ amp circuits in the amplifier room. All circuits should be labeled with Panel and breaker numbers for quick identification of location. Final Placement and location of all equipment will need to be coordinated with the venues sound designer and production manager. Additionally, the vendor will need to supply a touring style 200 amp power distribution rack in an ATA road style case (Black) with Wheels. This "PD" shall have camlock in and out connections and a minimum of 12 x 20 amp L5-20 circuit outlets, a digital voltage and amperage meter and racked work lights. The venue will also require the following Cables:

- (6) 10' L5-20 Male to Quad Edison cables. The cables shall be SO 12/3 and black.
- (12) 25' L5-20 Male to Quad Edison cables. The cables shall be SO 12/3 and black.
- (6) 50' L5-20 Male to Quad Edison cables. The cables shall be SO 12/3 and black.
- (1) Cube style ATA Case, Black, and on Wheels, for Storage of power cable.

### Wiring and Distribution Points:

Dante, an AV system protocol, should be installed for the audio system. This system will utilize network control cable (CAT5 and CAT6 cabling), run through conduit and terminated at a network switch located in the control booths equipment Rack. Drop points should be located stage left, stage right, the up stage wall, the orchestra pit, back of house, the amplifier room, and in the control booth. Drop points should be run through Conduit, which will need to be painted black in all areas that are visible to the audience and performers, and be terminated to a duplex plate engraved and labeled. Drop points should include two (2) connections and have one (1) spare cable un terminated in the junction box. In the control booth, a minimum of six (6) drop points should be placed so that audio, video, and streaming stations can utilize the same network.

NL4 and NL8 Wiring to connect the Speakers and the amplifiers should also be installed. This wiring should be placed in conduit (Painted Black) and attachment junction boxes with engraved and labeled plates need to be installed at locations of the speaker cabinet installation. Junction boxes with engraved nameplates containing NL4 connections should also be located stage left and stage right for onstage monitor speaker outputs. Monitor mixes 1-6 should be located Stage Right, and Monitor mixes 7-12 should be located stage left.

## **Amplifiers and Equipment Racks:**

The vendor will need to provide Well-ventilated equipment racks to house the amplifiers and other equipment such as for I/O network hubs, and network switching. These racks would need to be placed so that PAC staff have access to maintain and trouble shoot the equipment held within them. All Racks with the exclusion of the "Amplifier Rack" should be mounted to the wall, built of a heavy structural metal, black in color, have a door, able to swing away from the wall to access the back and be lockable. Final placement of all equipment and amplifier racks will be determined by the venues sound designer and production manager. Racks shall be located in the control booth, Amplifier room, Orchestra Pit, Stage left and Stage right. Racks located on the stage shall be of the lowest profile possible so as not to create an impedance of Theatrical operation. Rack Sizes will need to be determined by the equipment designed to be held within.

A total of six (6) high-powered 8K to 12K multi-channel amplifiers (4-channel minimum) to be utilized as power and drive for left, center, right, sub, front fill, and side fill speakers should be purchased. Amplifiers should utilize LAKE Digital Signal Processing and DANTE Digital Audio Networking. Manufacturers such as Lab Gruppen should be considered. Additionally, (6) high-powered 4K to 8K 4channel amplifiers should be installed to drive approximately 12 monitor mixes on stage. These Amplifiers should utilize LAKE Digital Signal Processing and DANTE Digital Audio Networking as well.

### **Speaker Cabinets and Monitors:**

The Vendor will provide and install a new system of speaker cabinets that will fill the hall with adequate audio coverage as well as meet rider requirements for low-to-mid-level artists, student productions and concerts, films, meetings and other events held in the PAC. While portions of the new audio system will be utilized for top-level artists, it will not negate the possible rental of equipment while producing certain guest artist events. Therefore, flexibility needs to be considered with the installation of the speaker cabinets for possible integration of rental racks and stacks.

Speaker Cabinets shall be a minimum of a Two (2) box configuration (for redundancy) located at Left, Hung Center Cluster, Right, Left Floor Sub and Right Floor Sub. A four (4) box (low profile front fill box) shall also be included and incorporated for events that may require them. Speaker cabinets will need to be placed in existing locations as to not disturb the current architectural elements of the hall. An ATA Style Case (Black and on Wheels) shall be provided for storage of the front fill speakers.

Professional speakers that are full range from either D&B, L Acoustics, or Martin will meet the needs of the hall. No other manufactures such as JBL and EAW will be accepted. PAC Staff will need to coordinate with designers, vendors and manufacturers regarding the appropriate models. Two speakers left, two speakers right, two speakers center, two subwoofers stage left and stage right, and four front fills should be spec'd inside the scope of work for full coverage and replacement.

The Vendor will provide an on-stage monitor speaker system. This system shall include sixteen (16) low profile 12" monitors, and four (4) low profile 15" monitors for event needs. These monitor speakers should me manufactured by MARTIN or match the manufacturer type of the main PA speaker cabinets. The Vendor shall also Provide ATA Cases (Black with Wheels) Capable of Storing four (4) Monitor speakers in each case.

## **Control Surfaces and Consoles:**

The Vendor will provide a current-industry-standard professional digital mixing command and control console system to support events as well as allow students the opportunity to learn best practices so they are prepared when begin to pursue employment in the live entertainment industry. This system should include the following:

(1) One Yamaha CS-R10 Rivage PM 10 Series fully loaded with accessories and plug in's to be located at the FOH Control Booth Position. This Console will be the Primary Console for the sound system and should include all appropriate DSP Units, Audio interface cards and redundant power supplies to prolong the life span of the unit. Dust Covers and LED Goose lights will be required. The DSP and appropriate outboard equipment shall be installed in Racks as a part of the install. This system shall not be considered movable or "Touring"

(1) One Yamaha CS-R10-S Rivage PM 10 Series fully loaded with accessories and plug in's to be used as either a monitor console, back up console, or back of house mixing console for students. This Console should be considered moveable or "Touring" and will need appropriate ATA Style cases for it and any DSP systems or Peripherals. This system should include all appropriate DSP Units, Audio interface cards and redundant power supplies to prolong the life span of the unit. Dust Covers and LED Goose lights will be required.

The consoles will need to be networked via the DANTE System and a separate wireless system (independent WIFI) should accompany the install for wireless control operation and mixing. In addition, two (2) surface tablets One (1) 16" Mac book Pro will be required for remote programming and operation of the audio system.

Appropriate DSP units for the operation of both consoles and the system

To connect to the network audio, I/O hubs need to be purchased and installed in wall-mounted equipment racks. These hubs need to be a minimum or 32 x 16. This allows for up to 32 channels of audio and 16 returns to be placed for the end user. Locations for these I/O hubs should be stage left, stage right, the orchestra pit, the amplifier room, the streaming and video station, and control booth. Additionally, a floating I/O rack should be purchased so that it can be utilized in place of the permanent locations as the need arises. This rack shall be in an ATA Style case (Black on Wheels).

Thoughts on a "Designers" system for Visiting and resident Sound designers should be considered.

An Audio Measurement system needs to be purchased and installed in a permanent way to allow users to properly mix and tune events in the PAC. SMARRT is a system that measures audio levels and visually display frequencies to better manipulate the mix. This system should include Software license for the below mentioned Mac book pro, Three Earthworks M30 Measurement mics, and a Permanently mounted 4 channel Scarlet 8i8 interface box. This system shall be set up in three configurations. Config 1. Single measurement mic mounted center of the control booth. Config. 2 single measurement mic semi permenately mounted in the back of the house. Config 3. Left, center, right config for system tuning.

# Front of House Work Space:

The Vendor will need to provide the following professional quality Front of house set up for the system.

1. A Studio Style Desk able to support the weight of the control console. This desk should be motorized so that the venue's engineers may be able to work either seated or standing to operate the control console. Black in Color

2. Two Floor Racks capable of supporting the consoles power supplies, DSP Units, Patch Bays, rack drawers for storage, Furman power supplies and other Peripherals. These Racks Should be located under the Studio style desk on the right and left sides of the floor. Black in Color.

3. An Appropriate Standing Play back rack Located to the Right of the console. This rack should be on a Stand, table, or rack mount capable of supporting the weight of the venues Playback and communication equipment allowing the operator to control the playback system from a seated position for operation during events.

3. Furman Power Supplies with LED Lights and Voltage monitoring capabilities for all Racks.

4. (2) Two Laptop stands Mounted to the Desk on Swing Arms able to support a 17" Laptop. (2) Two Semi Mountable Tablet Holders capable of supporting the control consoles remote surface instruments. (2) Two Monitor Screen Mounts for additional screens attached to the control console.

5. (2) Two JBL 708P 7 series 8" Powered Studio Speakers, appropriately mounted for cue from the Console.

6. (2) Two Apple Mac Book Pro Laptop Computers. Apple M1 Max chip with 10-core CPU, 32-core GPU, and 16-core Neural Engine, 32GB unified memory, 1TB SSD storage, 16-inch Liquid Retina XDR display, Three Thunderbolt 4 ports, HDMI port, SDXC card slot, Mag Safe 3 port, 140W USB-C Power Adapter, Backlit Magic Keyboard with Touch ID - US English.

Note\* Mac book #1 will be relegated to the house SMARRT System. Mac book #2 will be relegated to a QLAB and Wireless workbench Machine. Both Machines should be set up to use the Dante network and be capable of connecting to the control console for access to offline programming and Management including Plugins to the console.

These Laptops MUST be independent of the college's IT department as Software and firmware will need to be updated on a regular basis by the venues technicians.

7. (2) Clear Poly Cases for 16" Mac book pro Laptops. (2) Wireless Apple Keyboards with numeric pads and (2) Two Wireless Apple Mice.

- 8. (1) One Unlocked Full Seat of Q Labs, installed on the Mac book Pro Laptop as specified above.
- 9. (1) Wireless Work bench Seat, installed on the Mac book Pro Laptop as specified above.
- 10. (2) Cup style holders capable of support a 20 oz Yeti Cup.

The Vendor will be responsible for all installation, wiring, racking and set up of the Front of House Control Area. Including the venues existing play back and communication equipment. A Patch bay should be considered for the playback equipment or a dedicated I/O rack. Final Placement must be coordinated with the venues production manager.

### Wireless Microphones and In Ear Monitors:

The Vendor will provide and install in the production booth equipment rack a high quality Shure Axient Digital wireless System capable of up to 16 channels of wireless to match the existing House "Portable" Axient Wireless system. The Vendor provided system should include the following:

(4) Shure Axient AD4QUS – A: Frequency Band Version: 470 – 636 MHz (A) for 16 Channels.
(16) Shure AD1 Body Pack Transmitters with TA4 Connectors and Antennas (Please include 32 Spare Antennas)
(20) Waterproof Cases for Body Packs
(10) Additional Belt Clips
(16) Nude Color Body Mic Belts
(4) 24 space Clear shoe Bags that can be hung
(6) Shure AD2/B87A
(6) Shure AD3 Plug on Transmitters

Additionally, the Vendor will provide and install in the production booth equipment rack a high quality Shure PSM 1000 Personal Monitor System to include 8 channels of in ear monitor capabilities. The Vendor provided system should include the following:

(4) Shure P10T Dual Unit– G10 Wireless Transmitter, Frequency Band Version G10, Power Supply Included for a total of 8 Channels of Monitoring.

(10) Shure P10R+ Diversity Body Pack Receivers with Antennas (Please include 30 Spare Antennas)(16) Shure Waterproof Covers for the receivers

All Wireless will need to be connected to a vendor provided antenna distribution system capable capturing RF within the entire Building. Antennas may be placed either in the production booth or on stage. If installed on the stage level, placement will need to be determined by the venues Sound designer and production manager. Additionally, all wireless should be connected to the Dante Network for operation via either the Control Console or wireless monitoring management via the Program **Wireless Work Bench**.

## **Communication:**

The Vendor will need to provide and install a New Clear Com MS-702 2 Channel 1RU Main Station with Built-in Speaker. This unit will need to be installed in the playback rack located to the right of the control console. This unit will use the existing internal wiring infrastructure and should have a dedicated Program line run from a mix out of the Control Console. The Vendor will also provide the additional Peripherals:

(12) Twelve Clear Com RS-701 Belt packs

- (6) Six Clear Com RS-703 Belt packs
- (14) Fourteen CC-28 Lightweight Headsets with 4 pin Female XLR Connectors
- (2) Two Clear Com PT-8 Biscuits with 4 pin female XLR Connectors
- (2) Two Clear Com HS-6 Telephone Style Handset with 4 pin female XLR Connectors
- (4) Hour Clear Com FL-7 Call Signal Flashers
- (20) Twenty 25' 3 pin XLR Cables

The Vendor will be responsible to install, program, set up and tune the venues Clear com Free Speak II Wireless Com System and provide any parts not currently available at the venue. This unit will need to be installed in the playback rack located to the right of the control console and should have a dedicated Program line run from a mix out of the Control Console.

The Vendor will be responsible to install and Rack the venues HME 850 Pro Wireless Com System. This unit will need to be installed in the playback rack located to the right of the control console and should have a dedicated Program line run from a mix out of the Control Console. Additionally a Line needs to be run from this unit to the Amplifier Room so that it may be attached to the back stage page system so that announcements may be made from this system to the back stage area.

### **Back stage Speaker System**

The Vendor will need to install and integrate the venues back stage paging system into the Amplifier rooms new equipment rack. The existing 70-volt speaker system throughout the back stage areas will remain in place and is not to be touched. However, a new Amplifier of appropriate power will need to

be supplied and installed by the vendor as well as a single rack space Mixer. The Mixer should be able to send signal throughout the back stage system and should be outlined as follows. Channel 1 should be the overhead room mic. The same that feeds the hearing impaired system. Channel 2 should be a console feed assigned from a mix out of the control console. Channel 3 should be tied into the HME 850 pro paging capability from the Control booth, allowing back stage pages to be made from the Belt pack Transmitters of that system. Channel 4 should be a spare line from the control booth ultimately assigned to a switchable mic at any location in the building via the Dante Network system.

### **Hearing Impaired Integration:**

The Venue Currently owns an IR and IP Hearing impaired assist system. These systems will need to be updated and refreshed as well as installed and incorporated into the new sound systems installation. At a minimum a new single rack space mixer capable of four channels (Channel 1, board feed, Channel 2 Overhead mic, Channel 3 Spare line feed from console, Channel 4 Spare Line feed from console) should be installed and provided by the vendor. These components need to be incorporated in to the Amplifier Rooms equipment rack.

#### **Lobby Audio Feed:**

The Vendor will need to install a minimum of Four (4) Send Lines and Four (4) return lines from the venues Lobby Sound system to the Control booth for integration to the sound system. These lines are to be used to send a board feed to the lobby system as well as send signal from the lobby system to the main venues PA.

#### **Other Equipment:**

The Vendor will need to provide the following additional Boxed Goods:

- (50) 10' Three Pin XLR Cables
- (40) 15' Three Pin XLR Cables
- (50) 25' Three Pin XLR Cables
- (25) 50' Three Pin XLR Cables
- (20) 10' NL4 Jumper Cables
- (20) 25' NL4 Jumper Cables
- (10) 50' NL4 Jumper Cables
- (4) 12 Channel 25' XLR Stage Box Snake
- (4) 12 Channel 50' XLR Stage Box Snake
- (24) Countryman B3 Microphones Lavaliers T4 Connector
- (24) Countryman B3 Microphones over the ear T4 Connector
- (4) Shure P9 HW IEM Units
- (4) Complete sets of all JH Audio IEM Maintenance tools and equipment. Like all of them
- (10) Pelican 1010 Clear Micro Cases

- (10) Pelican 1040 Clear Micro Cases
- (10) Pelican 1050 Clear Micro Cases
- (10) Pelican 1060 Clear Micro Cases
- (2) Radial SW8 USB Dual USB Auto Switcher and interface units
- (4) DJ Style Weighted Laptop Stands

(2) ATA Style Road box on wheels (Black Laminate) with Three Spaces for Storage of above Audio Cables.

(6) Mac Aura LED Moving Lights complete with Power con to Edison Whips, and Half Coupler Hanging Hardware.

- (1) Mac Aura Road Case capable of storing 6 Mac Aura Lighting Fixtures.
- (4) Grandma 3 four port node with appropriate power con true 1 to Male Edison Cables.

### Removal and Disposal of Old Sound System:

The Vendor will be responsible to remove all trash and debris associated with the installation of the system.

Additionally, the Vendor will be responsible for the removal, disposal, or recycling of all components from the old system to include but not limited to speakers, amplifiers, racks, Control consoles and ATA cases, outboard equipment, wiring, etc.....

Old snake boxes and Wiring from the old system should be removed as much as possible, leaving intact only what needs to be re used including the venues touring copper and digital split snakes. The 48 channel Ram latch and W4 snakes as well as Digital snake must remain in place and un touched.

The venues production manager will identify additional components that may need to be disposed of by the vendor as well.

### Warranty, Training and Tuning of the system:

The Vendor agrees to provide a one-year warranty for all parts and installation of equipment beyond the equipment manufacturers warranty for workmanship and possible product defaults.

The Vendor agrees to provide training for up to four (4) of the Venues technicians and two (2) Sound designers on the installed system including manufacturer training for the Yamaha control consoles and Dante Network system. This training should be at no expense to the college and should include the appropriate Manufactures Training Representatives.

The Tuning of the system will be accomplished with both the vendor, the venues Sound Designer as well as the venues technicians and will include the programming of the entire system, Dante network, and console start pages. Tuning the system and start pages should also include the backup / monitor console as a part of the set up as well as designer stations. Two Additional Tuning will be required with all parties 6 months and One year following the completion of the project.

### Summary:

The new sound system needs to be as professional and simple as possible. While various components will be swapped out as technology changes, the upgraded and new infrastructure shall be as clean and robust as possible as to last 25+ years of operation. All Cables, Face Plates, Patch bays, racks, etc need to be labeled and engraved so that integration of new equipment as the system ages is as easy as possible. Redundant systems and wiring should be in place and considered for future upgrades as well as possible faults as the system ages. One is none and Two is one.

The Vendor shall Pay close attention to detail. This system should be user friendly and operational superior to other venues. The venue is looking for the most state of the art, live performance system possible.

It is imperative that the project finishes with operational start pages for the venues production staff.

A full set of "as" built drawings, including signal flow, needs to be furnished to the venue both hard copy and digitally at the completion of the project. Digitally, these drawings should be both in a PDF format as well as a .DWG or .VX so that the venues technicians may use their vector works skills to update or manipulate said drawings for future upgrades.

Paperwork including Input and output lists, IP addresses as well as scanned frequencies for equipment must also be supplied in an .XL and PDF format.

The venue is very excited to allow its users and students the opportunity to use, work with, and learn on the most professional equipment possible allowing the next generation of entertainment professionals the opportunity to gain real world experience before employment in the outside world.