

ADDENDUM NO.3
WILLINGBORO PERFORMING ARTS CENTER- AUDITORIUM RENOVATION

TO: Prospective Bidders

FROM: Jim Mullan, PE

DATE: June 8, 2023

SUBJECT: **Willingboro Performing Arts Center – Auditorium Renovation
Project # WTCEX 21015**

In reference to the Technical Specifications for the Willingboro Performing Arts Center Auditorium Renovation, Addendum No. 3 is hereby issued to address changes to the contract documents.

Please find the following items to be **modified** in the design plans and specifications:

1. **Theatrical Sound System**

Please see Attachment A for modified specification section 274101.

The following piece of equipment was added:

- **Allen-Heath AH GX4816 48x16 Audio Expander.**
Quantity Required: 1.

Note that edited Paragraphs are identified with a vertical line in the right border. Removed text is shown as ~~strikethrough~~. New text is shown as **bold** font.

The bid opening date shall be revised to read: June 20, 2023 at 10:00 A.M. prevailing time.

Clarification

In addition to the specification **modification** offered above, the following clarification is also offered in response to a submitted question:

Question #1:

Addendum 2 shows the removal of the Bose ControlSpace EX-1280 Processor. Is the intent to process the sound system with the internal DSP on the LEA amplifiers?

Response #1:

The ControlSpace EX-1280 Processor was eliminated because it was an unnecessary redundancy. The intent is to process the sound through both the Control Console and internal DSP on the LEA amplifiers.

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The bid opening date shall be revised to read: June 20, 2023 at 10:00 A.M. prevailing time.

Acknowledgement of Addendum #3

Bidders are required to sign and submit this page with the bid package as verification of receiving Addendum #3. The signed Addendum acknowledgement must be included with the bid submission packet.

Company Name

Print Name

Signature

ADDENDUM NO.3
WILLINGBORO PERFORMING ARTS CENTER – AUDITORIUM RENOVATION

ATTACHMENT A

SECTION 274101

THEATRICAL SOUND SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

- A. The sound system is a proprietary specification, based upon BOSE components selected for this specific application. The selected components were based upon an engineered audio analysis of the auditorium interior and wall surface texture.
 - 1. If the Bidder chooses to submit a complete sound system from another manufacturer, refer to Paragraph 1.2.B for submittal requirements.
- B. Section includes sound system consisting of the following:
 - 1. Control console components, Microphones, Amplifiers and Loudspeakers.
 - a. BOSE Loudspeaker System Design Report is included in this specification section. It immediately follows Part 3 – Execution 1.

1.2 ACTION SUBMITTALS

- A. Submittal Requirements for BOSE designed sound system:
 - 1. Product Data for each sound system component, and its' location inside the control console.
- B. Submittal Requirements for sound systems from other manufacturers: See Paragraph 1.3 below.

1.3 DELEGATED DESIGN SUBMITTAL

- A. This submittal is only required if the sound system submitted is other than BOSE.
- B. Product Data for each sound system component, and its' location inside the control console.
- C. Provide a complete sound system design solution, prepared and signed by a Certified Audio Engineer.
- D. Provide an Audio Model, presented to the Owner and Architect, capable of providing audio playback from any designated seat within the auditorium.
- E. For each component submitted, provide a side-by-side comparison with the comparable product recommended by BOSE.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A minimum of 15 years' experience manufacturing theatrical sound components and control systems.

- B. Installer Qualifications: A minimum of 5 years' experience installing theatrical sound components and control systems.

1.5 WARRANTY

- A. Materials and Workmanship: Audio Controls: Five years.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver sound system components in their original factory packaging, with manufacturers label clearly visible. Store products within the auditorium, at a location where they will not provide interference with ongoing construction activities.

PART 2 - PRODUCTS

2.1 MANUFACTURERS:

- A. All products listed below are based upon the BOSE engineered audio analysis. Products from alternate manufacturers must meet or exceed the performance requirements of the products listed.
- B. Obtain all products from same manufacturer, or endorsed by same manufacturer to make their designed sound system a complete and fully functional installation.

2.2 SOUND SYSTEM CONTROL CONSOLE

- A. Middle Atlantic PD-915R; Rackmount Power, 9-outlet, 15A, Basic Surge.
 - 1. Quantity Required: ~~2~~ 1.
- B. Middle Atlantic BRK12; 12Space (21) Rack, 18 Deep.
 - 1. Quantity Required: 1.
- C. Middle Atlantic EWR-12-22SD; 12Space / 22D Econo Wallrack, Black Door.
 - 1. Quantity Required: 1.
- D. Allen-Heath AH-SQ-6; 96kHz XCVI FPGA processing, 48 Input Channels, DEEP Processing Ready, 25 Faders / 6 Layers, 12 Stereo mixes+LR, 3 Stereo Matrix, 7 capacitive touchscreen.
 - 1. Quantity Required: 1.
- E. **Allen-Heath AH GX4816 48x16 Audio Expander.**
 - 1. **Quantity Required: 1.**
- F. Tascam CD-400U; CD/SD/USB Player with Bluetooth Receiver and FM/AM Tuner.
 - 1. Quantity Required: 1.
- G. Allen-Heath AH 10887 CAT6 Cable, 100M, Drum w/ Locking Connectors.

1. Quantity Required: 1.

2.3 MICROPHONE SYSTEMS AND ACCESSORIES

- A. RF Venue D-ARCD9FRVENUE D-ARCD9; diversity architecture antenna.
 1. Quantity Required: 1.
- B. Sense UHF Wireless Microphone Receiver SE-350-WR-1CHD, 1ch.
 1. Quantity Required: ~~3~~ 2.
- C. Sense UHF Wireless Condenser Hand-Held Microphone; SE-350-WT HAND.
 1. Quantity Required: ~~3~~ 2.
- D. Sense SE-350- WT-BODY; UHF Wireless Microphone Transmitter – Bodypack Lavalier.
 1. Quantity Required: 2.
- E. SKB Cases 1SKB-R6UW 6U eSeries Rolling Rack.
 1. Quantity Required: 1.

2.4 LOUDSPEAKERS AND ACCESSORIES

- A. BOSE Professional 730999-8860 ShowMatch SM20 DeltaQ Array Loudspeaker.
 1. Quantity Required: 4.
- B. BOSE Professional 730999-8850 ShowMatch SM10 DeltaQ Array Loudspeaker.
 1. Quantity Required: 2.
- C. BOSE Professional 766713-9610 ShowMatch SM20 WG12 Waveguide for SM20.
 1. Quantity Required: 2.
- D. BOSE Professional 734302-0110 ShowMatch SMS118 DeltaQ Subwoofer.
 1. Quantity Required: 4.
- E. LEA Professional CONNECT 704; 4 Channel x 700 watt @ 4. 8. 70V and 100V per channel. Internal DSP w/ Crossovers, IoT Device with built in WiFi Hotspot, WiFi or FAST Ethernet connectivity and Highly Efficient Power Supply with Class D Output Stage.
 1. Quantity Required: 1.
- F. LEA Professional CONNECT 1504; 4 Channel x 1500 watt @ 4. 8. 70V and 100V per channel. Advanced DSP w/ FIR Crossovers, IoT Device with built in WiFi Hotspot, WiFi or FAST Ethernet connectivity and Highly Efficient Power Supply with Class D Output Stage.
 1. Quantity Required: 1.
- G. LEA Professional CONNECT 702; 2 Channel x 700 watt @ 4. 8. 70V and 100V per channel. Internal DSP w/ Crossovers, IoT Device with built in WiFi Hotspot, WiFi or FAST Ethernet connectivity and Highly Efficient Power Supply with Class D Output Stage.
 1. Quantity Required: 1.
- H. BOSE Professional 845332-0110 ShowMatch Array Frame Multipoint Bracket.

1. Quantity Required: 2.

- I. BOSE Professional 770299-0110 ShowMatch T-Bar Array Frame.
1. Quantity Required: 2.

2.5 CONTROL CONSOLE DUST COVER

- A. Provide nylon, non-padded, dust cover sized to accommodate control console. When installed, the bottom edge of the dust cover shall not exceed 4-inches above the finished floor.
1. Allen-Heath AH AP11333; Dust Cover for SQ-6.
a. Quantity Required: 1.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. With Installer present, examine components and substrates upon which components will be installed, for compliance with requirements and other conditions affecting performance of the Work. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install components as directed by manufacturer, in compliance with manufacturers' requirements.

3.3 FIELD QUALITY CONTROL

- A. With the Manufacturers' Representative, Owner and Architect present, perform a quality control audio test at a minimum of nine locations within the auditorium. Locations shall be as follows:
1. Left Seating Section: Center of Rows A, F and M.
2. Center Seating Section: Center of Rows A, F and M.
3. Right Seating Section: Center of Rows A, F and M.
- B. If submitting a system other than BOSE, the installation audio test shall match the previously submitted shop-drawing audio test.

3.4 ADJUSTING

- A. Adjust speaker tilt and rotation to obtain optimal audio quality within the auditorium. Replace damaged and / or malfunctioning components which the manufacturer deems unrepairable.

3.5 DEMONSTRATION AND TRAINING

- A. Engage manufacturers' representative to provide on-site, hands-on, system operation demonstration and training exercises. Schedule training session with Owner, ensuring Owners' operation personnel availability.

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Removed text is shown as ~~strike through~~. New text is shown as **bold font**.

ADDENDUM 3
Issued June 7, 2023

- B. Turn over operation and maintenance manuals to Owner at time of demonstration and training instruction. Provide manufacturers and installers contact information for Owner's future reference.

3.6 CLEANING

- A. Follow manufacturers recommendations for cleaning console and individual components. Install control console dust cover prior to turning system over to the Owner.

3.7 MAINTENANCE

- A. Revisit site after 6 months, and after 12 months, to review operations and maintenance with Owner's personnel.

END OF SECTION 126100