

**DOCUMENT 00 91 04
ADDENDUM NO. 4**

PROJECT: 2024 Cy Lakes HS Renovation
BID DATE: **Thursday, December 19, 2024 (no Change)**
FROM: Carolina Weitzman, A.I.A.
Natex Corporation Architects
447 Heights Blvd, Houston, TX 77007
TO: **Prospective Bidders**

This Addendum forms a part of the Bidding Documents and will be incorporated into Contract Documents. Insofar as the Project Manual or Drawings or both are inconsistent, this Addendum governs. Acknowledge receipt of the Addendum by inserting its number into the Proposal Form. **FAILURE TO DO SO WILL SUBJECT BID TO DISQUALIFICATION.**

PART 1 CHANGES TO PROJECT MANUAL

1. 00-Index
 - a. Added SECTION 27 41 16.20 LOCAL SOUND REINFORCEMENT SYSTEMS
2. SECTION 27 41 16.20 "LOCAL SOUND REINFORCEMENT SYSTEMS":
 - a. Add this section in its entirety with the attached.
3. SECTION 27 41 34 AV SYSTEMS
 - a. Remove Section 1.06.B.6 Projection System
 - b. Remove Section 1.06.B.7 Camera System
 - c. Attachment A:
 - 1) Pg. 31:
 - a) Change Aruba IAP-315-CI to Aruba AP-515.
 - b) Remove (6) JBL Control 47HC.
 - 2) Pg 32: Remove (4) Community MX10-B.
 - 3) Pg 34: Change Aruba IAP-315-CI to Aruba AP-515.
 - 4) Pg 35: Change QSC Q-sys Core Flex 8 to QSC Q-sys Core 110f v2.

PART 2 CHANGES TO DRAWINGS

1. SHEET T0.00, "TECHNOLOGY LEGENDS AND SCHEDULES":
 - a. Remove reference to 27 41 16.10 Specification in Audio Video Legend
2. SHEET P5.02, "PLUMBING ENLARGED FLOOR PLAN":
 - a. Revise SK-6 TO SK-5. Greenhouse sink will be same as SK-5
3. AV3.00 – AV – SECTIONS & ELEVATIONS - AUDITORIUM
 - a. Clarified stage lip wall plate elevations.
 - b. Refer to revised sheet
4. AV7.30 – AV SCHEMATICS
 - a. Change wireless antenna to Shure UA864US
 - b. Refer to revised sheet

5. AV7.31 – AV SCHEMATICS
 - a. Change wireless access point to Aruba AP-515
 - b. Change projector screen to Draper 101782
 - c. Refer to revised sheet

6. AV7.33 – AV SCHEMATICS
 - a. Change wireless access point to Aruba AP-515
 - b. Showed wireless microphone antenna plates.
 - c. Refer to revised sheet.

PART 3 CLARIFICATIONS

1. **Question:** Catwalk Microphone - AV series drawing AV7.30 details a (3) catwalk microphones being installed into the auditorium. Specification Section 274134 does not detail nor quantify a catwalk microphone make and model. Please indicate a desired manufacturer and model of microphone to be used for the catwalk.
Answer: See pg 32 of the 27 41 34 spec - the (2) AKG C451 B and (1) Audix M1255B.

2. **Question:** Auditorium Wireless Antenna - AV series drawing AV7.30 details a Sennheiser ADP UHF antenna being installed in the auditorium for the wireless mic system. Specification Section 274134-32 details a Shure UA864US antenna for the auditorium wireless mics system. Please confirm which antenna is to be used for the auditorium.
Answer: Updated in Add. 4. Use the Shure UA864US.

3. **Question:** Auditorium Screen ModelAV series drawing AV7.31 details a Draper 144006 projection screen to be installed in the auditorium. Specification Section 274134-33 & drawing AV0.002 details a Draper 101782 screen to be installed into the auditorium. Please confirm which model screen to is to be installed in the auditorium.
Answer: Updated in Add 4. Draper 101782.

4. **Question:** Blackbox DSP Model - AV series drawing AV7.33 details a QSC Core 110f-v2 to be installed into the blackbox rack. Specification Section 274134-34 details a QSC Core 8 Flex to be installed into the blackbox. Please confirm which model dsp is to be installed in the blackbox.
Answer: Clarified in Add. 4 - QSC Core 110f-v2.

5. **Question:** Blackbox Video System - Section 274134-4 specifies a projection system and camera system for the blackbox. The AV series drawings do not detail nor quantify a projection or camera system for the blackbox. Please confirm that the projection & camera system is not required. If the projection & camera system is required for the blackbox AV system, please provide additional information regarding the integration of this equipment into the AV systems.
Answer: Removed in Add. 4

6. **Question:** Wireless Access Point - AV specifications 274134-31 & 274134-34 details an Aruba IAP-315-CI for the wireless access point for the auditorium and blackbox. This Aruba model has been discontinued by the manufacturer and on AV7.31 details a Netgear wireless access point to be used in the auditorium. Please provide a make and model of wireless access point to be used in the auditorium and blackbox.
Answer: Clarified in Add 4. Use Aruba AP-515.

7. **Question:** JBL Control 47HC - Section 274134-31 specifies JBL Control 47HC speakers for the auditorium. The AV series drawings do not detail nor quantify these JBL speakers. Please confirm that the JBL Control 47HC is not required. If the JBL Control 47HC speakers are required for the AV system, please provide additional information regarding the integration of this equipment into the AV systems.
Answer: Removed in Add 4. These are not required.
8. **Question:** Missing 274116.10 Specification - "T" Series drawing T0.00 Audio/Video Legend references spec 274116.10. However, Specification 274116.10 does not appear to have been provided. Please provide this document.
Answer: Disregard the spec reference. Refer to Addendum 04
9. **Question:** Missing 274116.20 Specification - "T" Series drawing T0.00 Local Sound System Legend references spec 274116.20. However, Specification 274116.20 does not appear to have been provided. Please provide this document.
Answer: Refer to newly issued specification 27 41 16.20 Local Sound Reinforcement System in Addendum 04.
10. **Question:** For the Polished concrete what level of aggregate and sheen is specified?
Answer: Use Level 1 Satin finish with Salt and Pepper level for aggregate.

PART 4 PRIOR APPROVALS

1. Specification Section 10 73 13 Awnings – Canopy Solutions is an approved manufacturer.

END OF ADDENDUM NO. 4

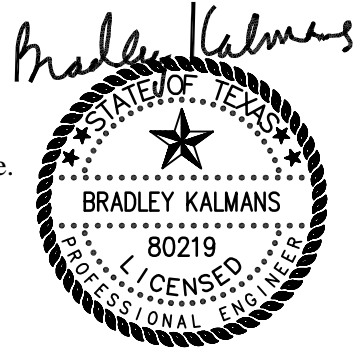
APPROVED FOR ISSUE:


By M. Carolina Weitzman, principal, NATEX Architects

END OF DOCUMENT

Total No. of Pages to Addendum No.4: 15 pages.

SECTION 27 41 16.20
LOCAL SOUND REINFORCEMENT SYSTEMS



PART 1 – GENERAL

1.1 RELATED WORK

- A. The following sections shall associate with this specification as applicable.
1. General Conditions
 2. Supplementary Conditions
 3. Division 1
 4. Division 26 in its entirety.
 5. Division 27 in its entirety.
 6. Division 28 in its entirety.

1.2 DESCRIPTION

- A. Summary of Work:
1. Provide all equipment specified well as all miscellaneous parts and materials required for the proper, complete, and functional Video and/or Sound Distribution System at the following Venues:
 - a. Press boxes as shown on drawings.
 2. All applicable equipment shall bear the UL label.
 3. Governing Codes and Conflicts: If the requirements of these specifications or the Project Drawings exceed those of the governing codes and regulations, then the requirements of these specifications and the Drawings shall govern. However, nothing in the Drawings or Specifications shall be construed to permit work not conforming to all governing codes, regulations, and manufacturer installation requirements.
 4. Locate equipment to accommodate millwork, fixtures, marker boards and other room equipment at no additional cost to the owner.
 5. Plenum rated cable may be used as an option at the contractor's discretion. Wherever cabling is run exposed, conduit shall be used to cover and protect wiring.
 6. These documents are conceptual in nature. It shall be the responsibility of the approved installer to furnish a complete and functional system, including the items shown on the drawings, in the specifications, and items not designated in either. The installer's shop drawings and product data submittals shall represent a complete system and documents accepted do not relieve the installer from being required to provide any materials, equipment, or labor to furnish a complete and functional system as recognized by the Project's Technology Consultant and the Owner.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications:
1. The contractor providing and installing the integrated audiovisual systems and associated infrastructure shall be an authorized dealer of the specified projector manufacturer and be capable of providing the manufacturer's maximum available product warranty.
 2. All individuals installing the audio-video system must be employees of the authorized dealer and at least 75% of the installing staff shall have undergone a training class given by the manufacturer. Current certification indicating the successful completion of the training course shall be available upon request at the project and submitted in the contractor's product submittals.

3. The proposing contractor and the installing contractor must be the same company. No subcontractor to the proposing audio-video contractor will be allowed for any portion of the audio-video scope of work.
 4. The System Installer shall meet all applicable regulations of the State and Department of Labor insofar as they apply to this type of system. The bidder shall be a firm normally employed in the audio-video industry and shall provide a reference list of ten (10) projects of equivalent size or larger and contact names confirming successful completion of projection system installations.
 5. The bidder shall have an authorized service center, within 75-miles of the project's location, for the brand of equipment that is submitted for bid. The Owner, Architect, and Consultant reserves the right to perform an onsite inspection as they deem necessary.
 6. The bidder must produce a letter from the manufacturer guaranteeing the delivery of all the equipment outlined in the specification herein.
 7. The bidder shall have a full-time local service personnel capable of servicing the projector system described herein.
- B. Pre-Construction Meeting:
1. The successful Contractor shall attend a mandatory pre-construction meeting with individuals deemed necessary by the Owner's representative prior to the start of the work.
 2. The contractor shall provide a mockup of the complete integrated audiovisual system solution for each of the typical spaces below before implanting the installation in multiple like rooms. Mockup shall include all products listed in part 2 of this specification. Coordinate with G.C., Architect, Consultant, and Owner for scheduling and location of mockup.
 3. All proposing contractors must have ability to demonstrate a/v system being proposed and provide owner with completely installed system to evaluate performance and operation.
- C. Acceptance: The Owner's representative reserves the right to reject all, or a portion of the work performed, either on technical or aesthetic grounds.
- D. Warranty:
1. The selected system installer shall be factory authorized service center and shall provide an end-to-end performance warranty of not less than one (1) year. The proposer shall provide current certification documentation. The performance warranty shall be issued by the manufacturer and shall warrant that video projection system projectors have been tested to the district's approval. This end-to-end warranty shall cover the labor associated with removing/reinstalling any associated hardware or equipment as well as the replacement of all defective equipment or hardware.
 2. The bidder shall also submit with the materials mentioned in section 1.5 submittals of this specification a written explanation outlining the terms and conditions of product warranty of all parts and service of the integrated a/v solutions.

1.4 REGULATORY REQUIREMENTS

- A. Standards: All work shall be performed in accordance with the latest revisions of the following standards and codes:
1. Latest Local Codes and Amendments
 2. National Electrical Code, current version
- B. Other References:
1. TIA/EIA-568-A Commercial Building Telecommunications Wiring Standard

2. EIA/TIA-569 Commercial Building Standard for Telecommunication Pathways and Spaces.
 3. TIA/EIA-606 The Administration Standard for the Telecommunications Infrastructure of Commercial Buildings.
 4. TIA/EIA-607 Commercial Building Grounding and Bonding Requirements for Telecommunications.
 5. EIA/TIA 455-A Standard Test Procedure for Fiber Optic Fibers, Cables, Transducers, Sensors, Connecting and Terminating Devices and Other Fiber Optic Components.
 6. TIA/EIA TSB 67 Transmission Performance Specification for Field Testing of Unshielded Twisted-Pair Cabling Systems.
 7. TIA/EIA TSB 72 Centralized Optical Fiber Cabling Guidelines
 8. ISO/IEC 1180 Generic Cabling Standard
 9. EN 50173 Generic Cabling Standards for Customer Premises
 10. ANSI/EIA/TIA 526-14 Optical Power Loss Measurements of Installed Multimode Fiber Cable Plan.
- C. Governing Codes and Conflicts: If the requirements of these specifications or the Project Drawings exceed those of the governing codes and regulations, then the requirements of these specifications and the Drawings shall govern. However, nothing in the Drawings or Specifications shall be construed to permit work not conforming to all governing codes and regulations.

1.5 ABBREVIATIONS

- A. The following abbreviations are used in this document:
1. AV-## Audiovisual input station / Presentation Station (Reference drawing legend) CMP Ceiling Mounted Projector LCD or LED Flat panel screen/monitor

1.6 SUBMITTALS

- A. Project Initiation: Within fourteen (14) days of Notice to Proceed, the projection system installer shall furnish the following in a single consolidated submittal:
1. Permits: The Contractor shall obtain all required permits and provide copies to the Owner/Architect/Engineer.
 2. Product Literature: Complete manufacturer's product literature for all, speakers, amplifiers, cable, cross-connect blocks, cable supports, cable labels, outlet devices, and other products to be used in the installation. In addition, whenever substitutions for recommended products are made, samples (when requested by the Owner/Designer) and the manufacturer's supporting documentation demonstrating compatibility with other related products shall be included.
 3. Construction Schedule: A time-scaled Construction Schedule, using PERT/CPM, indicating general project deadlines and specific dates relating to the installation of the cable distribution system.
 4. Testing: Proposed Contractor test result forms, and a list of instrumentation to be used for systems testing.
 5. The contractor shall provide a letter from the manufacturer stating that the dealer is an authorized service center.
 6. The resume and contact information of the full-time service personnel responsible for the installed projection system.
 7. Specification Compliance: A letter shall be provided stating, by section and subsection, that the installer complies with the ENTIRE specification section. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be

- provided in addition to the specification compliance letter. No deviations shall be acceptable until they have been accepted by the project's technology consultant.
8. Certifications: The contractor shall submit all of the following certifications and the certifications must contain dates which are valid from the date of proposal and not expire any sooner than 12 months after substantial completion of the project.
 - a. AMX authorized dealer certification
 - b. Installer training certification: 1) Provide specification with line-by-line acknowledgement of compliance.
- B. Shop Drawings: Submit the following items, for Owner review and approval, within twenty-eight (28) days of notice to proceed:
1. Proposed wiring and connectivity diagram of the proposed projection system including all faceplates and sound reinforcing equipment
 2. In addition to the wiring/connectivity diagram, the submitted drawings shall indicate the following, even if the following is expected to be provided by the project's electrical or general contractor:
 - a. Location of wall penetrations (all penetrations shall be sleeved and contain protective bushings at both ends)
 - b. Location of sleeved wall pass-thru
 - c. Size of sleeve at each location installed
 - d. Quantity of cable passing through each sleeve
 - e. Location of drops in each room (quantity or labeling of drops are not required in the submittal plans. Labeling shall be provided in the closeout plans and quantities shall be as per the contract documents, addendums, and issued changes. Each drop shall be labeled for the type of outlet that it is)
 - f. Conduit routing, size, quantity, and stub-up locations for all floor mounted outlets.
 3. Drawing Compliance: A letter shall be provided stating that the installer complies with the ENTIRE project drawing, including all general, keyed, and notes to contractor. If the installer intends to deviate from any portion of the specifications, a detailed explanation of reason in which the installer would like to deviate shall be provided in addition to the specification compliance letter. **NO DEVIATIONS SHALL BE ACCEPTABLE UNTIL THEY HAVE BEEN ACCEPTED BY THE PROJECT'S TECHNOLOGY CONSULTANT.**
- C. Project Completion: As a condition for project acceptance, the Contractor shall submit the following for review and approval:
1. Samples: Complete manufacturer's product literature and samples (if requested) for all pre-approved substitutions to the recommended products made during the course of the Project.
 2. Inspection and Test Reports: During the course of the project, the Contractor shall maintain an adequate inspection system to ensure that the materials supplied, and the work performed conform to Contract requirements. The contractor shall provide written documentation that indicates that materials acceptance testing was conducted as specified. The Contractor shall also provide documentation, which indicates that all cable termination testing was completed and that all irregularities were corrected prior to job completion.
 3. Operating and Maintenance Instructions: Operating and maintenance instructions for all devices within the system. These instructions shall reflect any changes made during the course of construction and shall be provided to the Owner for their use on disc or USB drive with the project name and description (2 copies).

4. Provide schematic line diagram of system components as deployed in each installation.

PART 2 – PRODUCTS

2.1 GENERAL

All products listed in this section shall be provided and installed by the contractor unless otherwise noted below. The following list is not intended to be a complete list of required equipment or cables as the project is to be Turnkey and may require equipment beyond the depth of this list. It is the contractor's responsibility to ensure that they are providing a complete and functional system with their proposal.

- A. Installation: The cabling shall be installed per requirements of the manufacturer and the Project Documents utilizing materials meeting all applicable TIA/EIA standards. The Contractor is responsible for providing all incidental and/or miscellaneous hardware not explicitly specified below as required for a complete and operational system.
- B. Materials: Materials shall be as listed or shall be approved equivalent products of other manufacturers meeting the intent and quality level of the TIA/EIA specifications. All approved equivalent products will be published by addendum ten days prior to proposal for Architect / Engineer to review.
- C. Testing: All installed cabling shall be tested 100% good after installation by the Contractor.
- D. Ratings: All products shall be new and brought to the job site in the original manufacturer's packaging. Electrical components (including innerduct) shall bear the Underwriter's Laboratories label. All communications cable shall bear flammability testing ratings as follows:
 - CM Communications Cable
 - CMP Plenum Rated Communications Cable
 - CMR Riser-Rated Communications Cable
- E. Initial Cable Inspection: The Contractor shall inspect all cable prior to installation to verify that it is identified properly on the reel identification label, that it is of the proper gauge, containing the correct number of pairs, etc. Note any buckling of the jacket that would indicate possible problems. Damaged cable or any other components failing to meet specifications shall not be used in the installation.
- F. Cable Lubricants: Lubricants specifically designed for installing communications cable may be used to reduce pulling tension as necessary when pulling cable into conduit.
 1. Approved Products
 - a. Twisted-pair cable: Dyna-Blue
 - b/ American Polywater
- G. Fire Wall Sealant: Any penetration through firewalls (including those in sleeves) will be resealed with an Underwriter Laboratories (UL) approved sealant.
 1. Approved Products
 - a. 3M or
 - b. Pre-approved equal

2.2 TRAINING

- A. A minimum of eight hours for instruction in proper operation and routine maintenance of the system. Instruction shall cover all materials indicated in the Owner's operations manual.
- B. Operational guidelines shall be given in written form in sufficient numbers so that all key personnel have operational instructions of programming; station use and special features. Copies of these instructions shall be provided for permanent record in the operations and

maintenance manuals.

2.3 WARRANTY

- A. One year from Date of Substantial Completion

2.4 PRODUCTS AND MATERIALS

- A. Athletic Field P.A. Systems(Press Boxes):
 - 1. Amplifier: Re-use existing
 - 2. Rack: Re-use existing
 - 3. Mixer: Re-use existing
 - 4. Wireless Microphones: Re-use existing
 - 5. Exterior mounted speakers- JBL AWC 129 BK
 - a. Mount new speakers on front of press box: two speakers on each side, mounted horizontally one over the other. Speakers must be mounted to move left and right horizontally.
 - b. Provide new wiring
 - 6. Wall mounted equipment (in the knee space in center of press box); provide if not present.
 - a. One Mic Jack Plate
 - b. One L-R Aux input plate (2 RCA audio jacks)

PART 3 – EXECUTION

3.1 GENERAL

- A. Contractor is required to properly mount integrated A/V solutions and connect all ceiling video / audio cables to projector component inputs.
- B. Contractor is required to thoroughly test and verify operation of all A/V inputs and video modes prior to project completion.
- C. Contractor is required to focus and adjust projector to properly project image on viewing surface (screen or multimedia board depending on location).
- D. Contractor shall provide owner with written verification test process and results once all projectors have been installed, tested, and placed in final condition.
- E. Damage: The Contractor shall replace or rework cables showing evidence of improper handling including stretches, kinks, short radius bends, over tightened bindings, loosely twisted and over-twisted pairs at terminals and cable sheath removed too far (over 1-1/2 inches).
- F. The Contractor shall replace any damaged ceiling tiles that are broken during cable installation.
- G. Clean Up: All clean up activity related to work performed will be the responsibility of the Contractor and must be completed daily before leaving the facility.

3.2 DOCUMENTATION

- A. Contractor shall provide owner with detailed serial number listing and associated graphical room number designation equipment was installed. Contractor shall use actual graphical package room numbers not architectural plan numbers from construction set.

3.3 STATION WIRING INSTALLATION

- A. General: All cable must be handled with care during installation so as not to change performance specifications. Factory twists of each individual pair must be maintained up to the connection points at both ends of all category 6 cable. There shall never be more than one and one-quarter inch of unsheathed enhanced Category6 UTP cable at either the wiring USB Transmitter or Receiver.

- B. Exposed Cable: All cabling shall be installed inside walls or ceiling spaces whenever possible. Exposed station cable will only be run where indicated on the Drawings. Additional exposed cable runs will require Owner approval and will only be allowed when no other options exist.
- C. Placement: All cabling and associated hardware shall be placed so as to make efficient use of available space. All cabling and associated hardware shall be placed so as not to impair the Owner's efficient use of their full capacity.
- D. Cable Routes:
 - 1. All cabling placed in ceiling areas must be in conduit, cable tray or an approved J-Hook cable support. Cable supports shall be permanently anchored to building structure or substrates. Provide attachment hardware and anchors designed for the structure to which attached and that are suitably sized to carry the weight of the cables to be supported. Do not route cable through webbing of structural steel. Cabling must be supported in dedicated supports intended to support cabling as described in this section. Contractor shall adhere to the manufacturer's suggested fill ratio for each size cable support installed.
 - 2. Attaching cable to pipes or other mechanical items is not permitted. Communications cable shall be rerouted so as to provide a minimum of 18 inches spacing from light fixtures, sources of heat, power feeder conduits and EMI sources. Cabling shall not be attached to ceiling. Grid support wires. Cable runs shall be routed down the corridors; parallel or perpendicular to building structure. Multiple cables to be bundled together at and between each cable support installed.
 - 3. Contractor shall be responsible for coordinating with other trades on the project so that the installed cable pathway does not interfere with the installation of other systems to ensure that mechanical ducts, pipes, conduits, or any other above ceiling systems are not putting unnecessary stress on any portion of the install audio-video cabling.

3.4 STATION HARDWARE

- A. Flush mounted components: all components shall be inserted to a flush mounted faceplate unless designated otherwise.
- B. Placement: Where possible, the AV input outlets shall be located so that its centerline is 18 inches above floor level or 12 inches above permanent bench surfaces. Outlets shall not be mounted on temporary, movable, or removable surfaces, doors, or access hatches. The CMP outlet shall route directly to the rear of the projector and does not require any type of faceplates.

3.5 PROGRAMMING

- A. Programming shall be coordinated with the Owner and Project's Consultant. Programming shall include, but not be limited to the following:
 - 1. AV Control Panel Configuration
 - 2. Audio routing from any source location through the DSP
 - 3. Projector and screen control via the Audio / Video Control panel
 - 4. Device resolution and over/under-scanning settings
 - 5. Incorporation of any Owner furnished source equipment (maximum of 3)

3.6 FINAL TESTING REQUIREMENTS

- A. Notification: The Owner and Engineer shall be notified one week prior to any testing so that the testing may be witnessed.
- B. Inspection: Before requesting a final inspection, the Contractor shall perform a series of

end-to-end installation performance tests. The Contractor shall submit for approval a proposal describing the test procedures, test result forms and timetable for all copper and fiber optic cabling.

- C. Procedures: Trained personnel shall perform all testing. Acceptance of the test procedures discussed below is predicated on the Contractor's use of the recommended products and adherence to the inspection requirements and practices set forth. Acceptance of the completed installation will be evaluated in the context of each of these factors. Testing procedures shall consist of, but not be limited to the following:
1. Input locations to be tested utilizing multiple types of source equipment.
Equipment to include:
 - a. Personal Computer (laptop)
 - b. Apple iMac
 - c. Apple Mac Mini
 - d. Google Chromebook
 - e. Additional devices may be required at the time of testing
 - f. contractor to provide devices on a single cart, to roll between inputs during testing.
 2. Routing of video, from any source to each projector and display simultaneously and independently.
 3. Routing of audio, from any source to each audio channel simultaneously and independently.
 4. Control of the entire system from each installed A/V Control Panel
 5. Additional test requirements may be required at the Owner and/or Consultant's request.

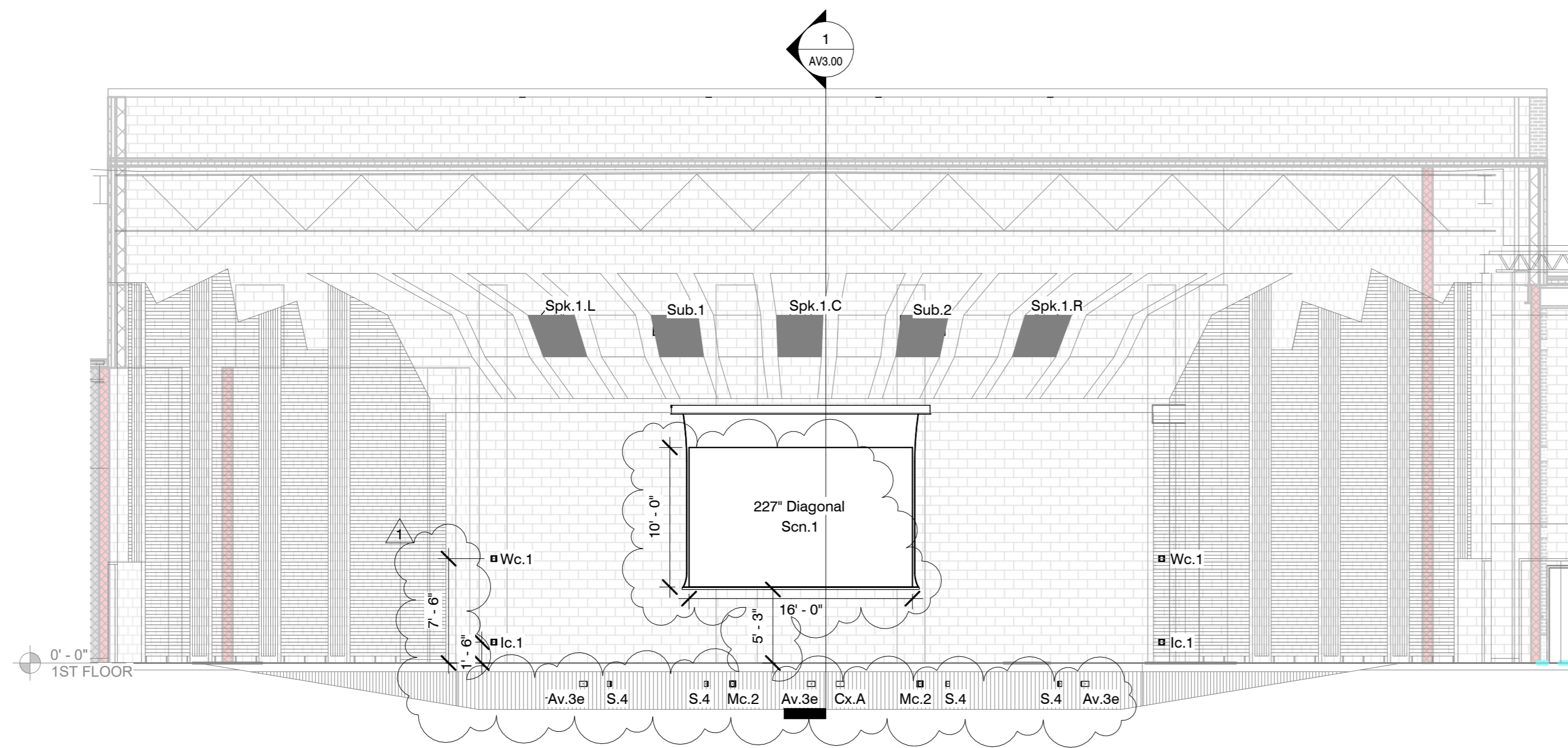
3.7 OWNER TRAINING AND DEMO

- A. A/V integrator shall provide demonstration of all integrated a/v solutions to owner's staff that have any stake with the operation and maintenance of the a/v solutions. Integrator shall produce sign in sheets for record of who was trained and when. Copies of sign in sheets shall be submitted with close out paperwork. Coordinate training dates with owner at project completion.
- B. Integrator shall provide factory training for owner's operations and maintenance personnel for each major component of the systems listed in the A/V solutions outlined in part 2 of these specifications. Training shall be a minimum of 4 hrs. per person. Re-training of staff shall be available, at no cost to the owner, to a maximum of 3 on-site training sessions up to 1 year from the date of project completion.
- C. All training is to be recorded via video recording and a copy of the recorded video shall be provided to the owner upon completion. All video recording equipment, for the recording of training, shall be provided by the integrator.

END OF SECTION



1 AV - AUDITORIUM - CENTERLINE SECTION
Scale: 1/8" = 1'-0"



2 AV - AUDITORIUM - FRONT ELEVATION
Scale: 1/8" = 1'-0"



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tel: 832.947.1039 fax: 281.214.5365

CONSTRUCTION DOCUMENT

CIVIL ENGINEER
BROOKS AND SPARKS, INC.
21020 PARK ROW
KATY, TX 77449
tel: 281.578.9595

STRUCTURAL ENGINEER
DALLY + ASSOCIATES, INC.
3800 RICHMOND AVE.
SUITE 400
HOUSTON, TX 77042
tel: 713.337.8881

MEPT ENGINEER
SALAS O'BRIEN
10930 W. SAM HOUSTON PKWY. N.
SUITE 900
HOUSTON, TX 77064
tel: 281.664.1900

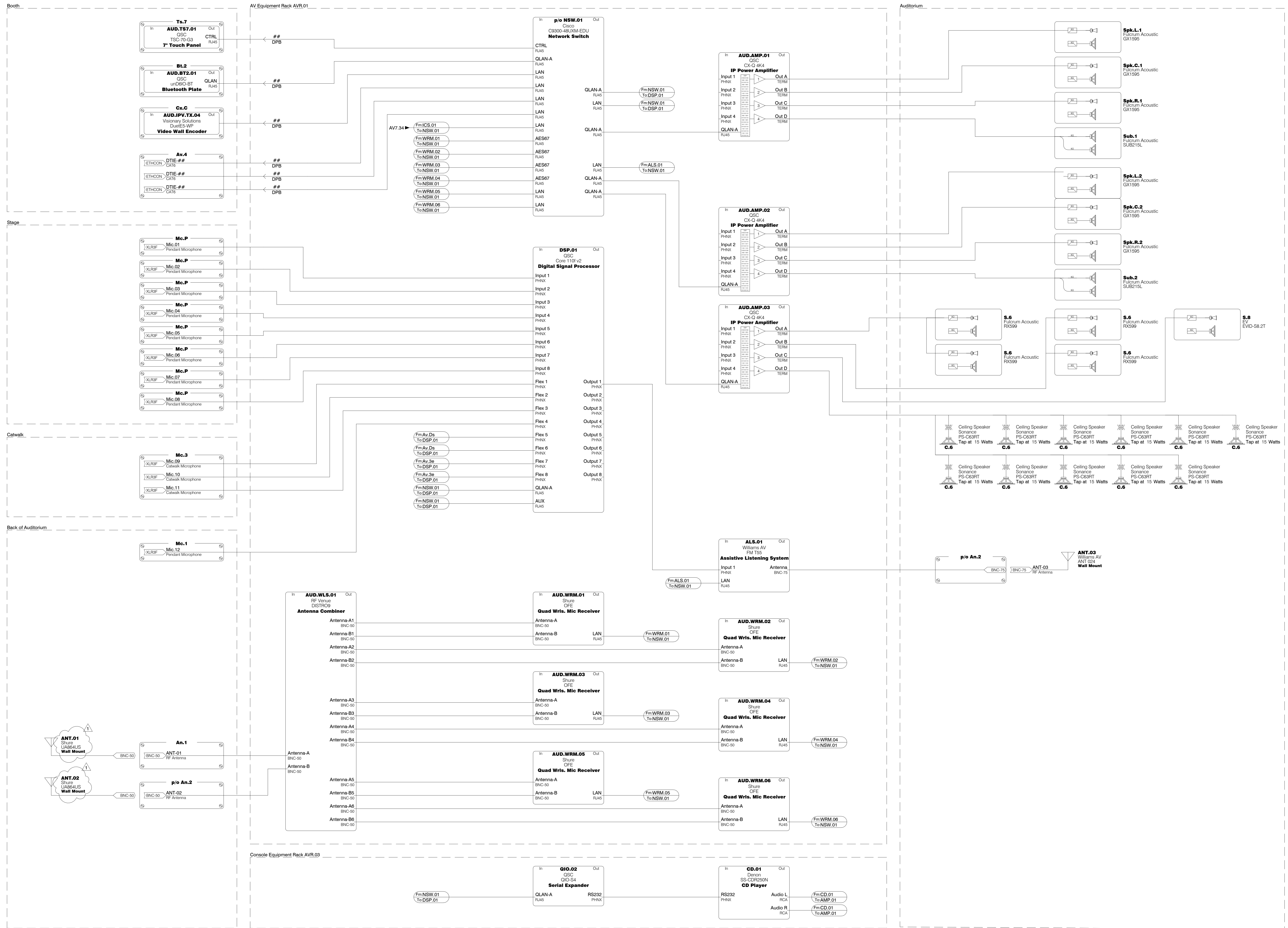
**2024 CY-LAKES HIGH SCHOOL
RENOVATION**
5750 GREENHOUSE RD., KATY, TX 77449
CFISD PROJECT NO. 24-02-5749-R-RFP

NO.	DATE	DESCRIPTION
1	12/16/2024	BID SET
		Review/ Submission

Project Number: 23071
Date: 11-17-2024
Drawn by: TAC

AV - SECTIONS &
ELEVATIONS -
AUDITORIUM

AV3.00



CIVIL ENGINEER
BROOKS AND SPARKS, INC.
 21020 PARK ROW
 KATY, TX 77449
 tel: 281.578.9595

STRUCTURAL ENGINEER
DALLY + ASSOCIATES, INC.
 9800 RICHMOND AVE.
 SUITE 400
 HOUSTON, TX 77042
 tel: 713.337.8881

MEPT ENGINEER
SALAS O'BRIEN
 10930 W. SAM HOUSTON PKWY. N.
 SUITE 900
 HOUSTON, TX 77064
 tel: 281.664.1900

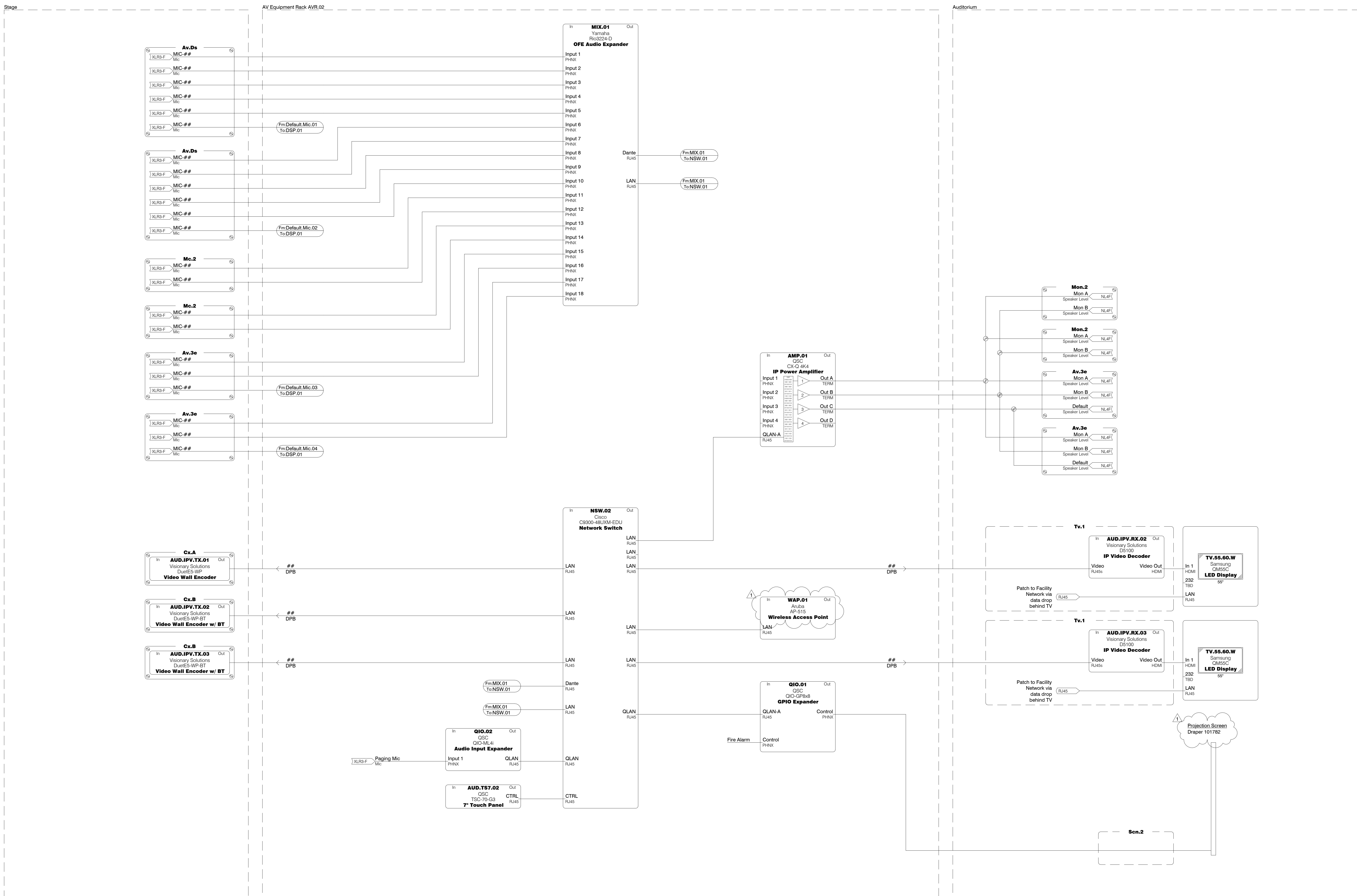
**2024 CY-LAKES HIGH SCHOOL
 RENOVATION**
 5750 GREENHOUSE RD., KATY, TX 77449
 CFISD PROJECT NO. 24-02-5749-R-RFP

ADDENDUM 04	12/16/2024	24
Reviews / Submission		
Project Number:	23071	
Date:	11-17-2024	
Drawn by:	TAC	

AV - SCHEMATICS

AV7.30

Auditorium Audio System Schematics
Scale: None



NATEX CORPORATION ARCHITECTS
 www.natexarchitects.com
 447 Heights Boulevard
 Houston, TX 77007
 Phone: 713-975-9525
 Fax: 713-780-7824

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 3701 Kirby Drive, Suite 830
 Houston, TX 77098
 tel: 832.947.1039 fax: 282.214.5365

CONSTRUCTION DOCUMENT

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BROOKS AND SPARKS, INC.
 21020 PARK ROW
 KATY, TX 77449
 tel: 281.578.9595

STRUCTURAL ENGINEER
DALLY + ASSOCIATES, INC.
 9800 RICHMOND AVE.
 SUITE 400
 HOUSTON, TX 77042
 tel: 713.337.8881

MEPT ENGINEER
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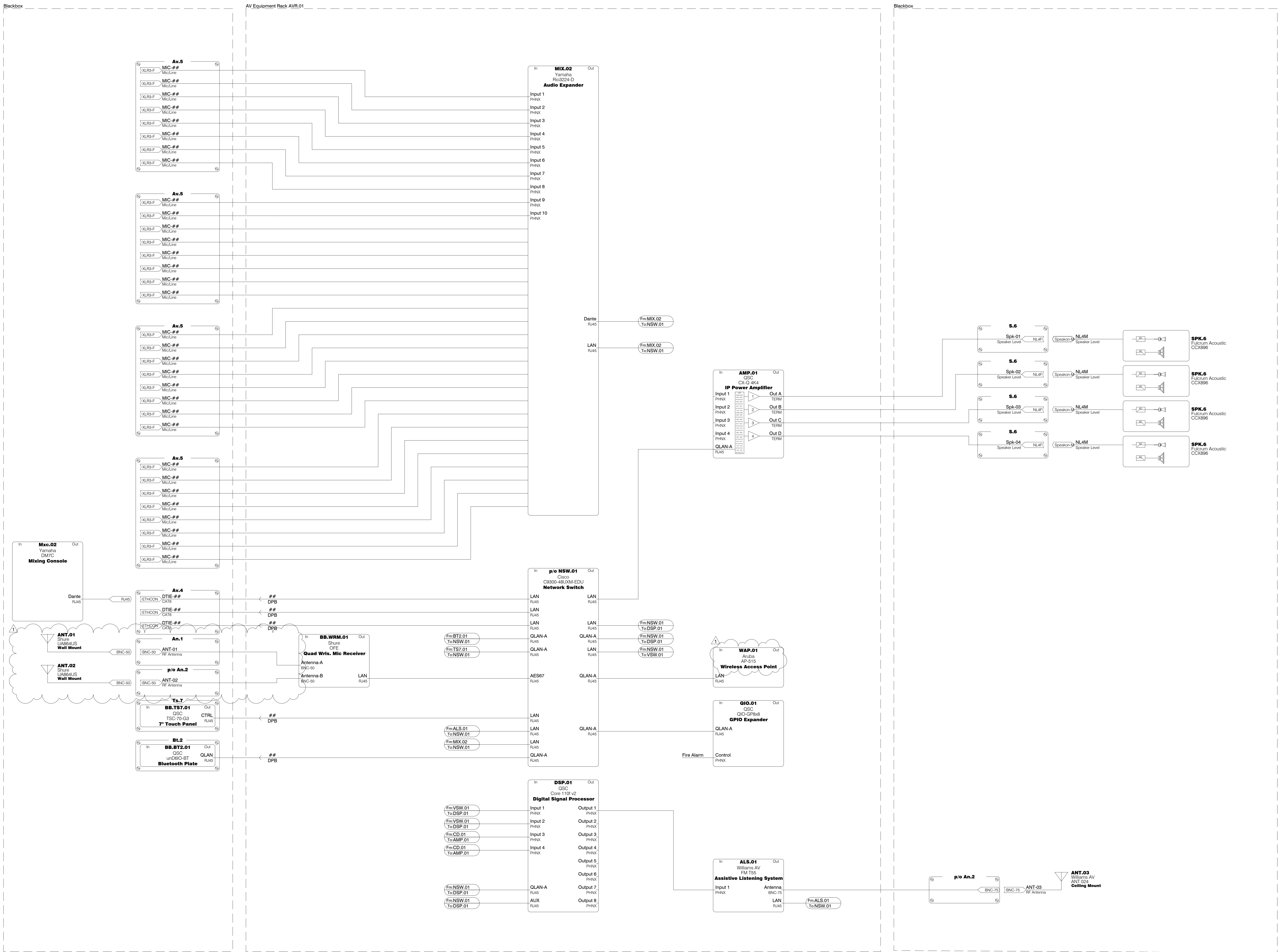
2024 CY-LAKES HIGH SCHOOL RENOVATION
 5750 GREENHOUSE RD., KATY, TX 77449
 CFSID PROJECT NO. 24-02-5749-R-RFP

NO.	REVISION	DATE
1	ADDENDUM 04	12/16/2024

Reviews / Submission

Project Number: 23071
 Date: 11-17-2024
 Drawn by: TAC

1 Auditorium Audio System Schematics
 Scale: None



1 Blackbox System Schematics
Scale: None

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CONSTRUCTION DOCUMENT

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Reviews / Submissions

AV - SCHEMATICS