



YARMOUTH SCHOOL DEPARTMENT

Empowering all students

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REQUEST FOR PROPOSAL (RFP)

YPAC Auditorium Upgrades and Repairs : Phase 1 – Core Infrastructure

Yarmouth High School

1. PROJECT SCOPE: PHASE 1

The scope of Phase 1 includes the decommissioning of legacy core components and the installation of a new digital audio backbone, control system, and video switching infrastructure.

"Infrastructure Backbone: Phase 1 represents the foundational architecture for a multi-phased renovation. All systems installed under this phase—specifically the Digital Audio Network (Dante), System DSP, and Control Logic—must be sized and configured to support the seamless integration of Phase 2 (Wireless Audio & Comms) and Phase 3 (Theatrical Lighting Control) without requiring the replacement or significant hardware modification of Phase 1 core components."

Key Deliverables:

- Installation of a high-capacity digital mixing console and stage I/O.
- Centralized Audio DSP and Integrated Control System.
- New system-wide patching (Audio, Data, and Video).
- Custom AV wall panels and updated cabling.
- Basic video matrix switching for presentation.
- Implementation of "Simple" and "Advanced" operational modes.

2. TECHNICAL SPECIFICATIONS

All items are "Basis of Design." Bidders may propose equivalent products meeting or exceeding these criteria.

2.1 Digital Audio Mixing System

- **Mixing Console:** 96kHz XCVI FPGA processing engine; minimum 48 input channels; 25 motorized faders; 7-inch capacitive touchscreen; integrated SLink and Dante 32x32 expansion ports.



- **Remote Stage Box:** Portable Dante-enabled I/O rack; 16 XLR microphone/line inputs with remote-controllable preamps; 8 XLR line outputs; Primary/Secondary ports for daisy-chaining or redundancy.

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2.2 System Processing & Control

- **Audio DSP & Controller:** Unified hardware platform for audio processing and control logic. Must support multi-zone routing and custom user interface hosting.
- **User Interfaces:** * **Booth:** Minimum 10-inch PoE-powered capacitive touchscreen for full system management.
 - **Stage:** Minimum 7-inch PoE-powered capacitive touchscreen for "Simple Mode" operation.
- **Simple Mode Requirement:** Logic must allow non-technical users to activate a preset number of microphones and a video source without the main console being powered on.

2.3 Video Infrastructure

- **Video Switcher:** 6-input multi-format matrix switcher (minimum 4x HDMI, 2x VGA/Universal); must support scaling to 4K/60; integrated audio de-embedding.
- **Signal Extension:** HDBaseT-compatible wall plate transmitters for HDMI and VGA/Audio at the stage location, with matching receivers at the booth.

2.4 Patching & Interconnects

- **Audio Patchbay:** 2x48 TT (Bantam) patchbay; gold-plated contacts; front-panel normalizing switches.
- **Data Patchbay:** 24-port Category 6 Gigabit Ethernet panel for AV network distribution.
- **Video Patchbay:** 24-port high-density SDI (12G-rated) video patch panel.

2.5 Custom Connectivity Panels

- **Upstage Center:** Custom-engraved panel featuring two high-density multi-pin connectors (for 16-channel and 8-channel snakes), 4x XLR inputs, 2x XLR outputs, 2x Network ports, and 1x SDI port.
- **Stage Right/Left:** Custom-engraved panels with 4x XLR inputs, 2x XLR outputs, 2x Network ports, and 1x SDI port.
- **Front of House (FOH) / Balcony:** Custom-engraved panels with XLR I/O and network tie-lines.

2.6 Capacity Requirements

- **Network Capacity:** "The AV network switches and Dante-enabled devices provided in Phase 1 must have sufficient bandwidth and port density to accommodate the additional 16-24 channels of wireless audio and intercom projected for Phase 2."
- **DSP Headroom:** "The Audio DSP (Digital Signal Processor) must be specified with a minimum of 30% available processing overhead (CPU/MIPS) after Phase 1 programming is complete to allow for the advanced routing and logic required in Phases 2 and 3."

- **User Interface (UI) Design:** "The touchscreen control interfaces installed in Phase 1 must be designed with a modular GUI (Graphical User Interface). The layout must include 'grayed-out' or hidden navigation tabs for 'Wireless Mics' and 'Lighting Presets' that can be activated during later phases without a complete redesign of the UI."
- **Physical Rack Space:** "The equipment rack layout must include a minimum of 6U of contiguous 'Reserved' rack space to accommodate Phase 2 wireless receivers and intercom main stations."

2.7 System Documentation

- **"As-Built Requirements for Future Phases:** The Contractor shall provide a complete 'Dante Controller' map and DSP project file (unlocked) at the conclusion of Phase 1. This documentation must be sufficiently detailed to allow a qualified integrator in Phase 2 or 3 to build upon existing network routes and control logic."
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3. INSTALLATION REQUIREMENTS

- **Decommissioning:** Safe removal and organized disposal/storage of existing legacy DSP, patchbays, and redundant cabling.
 - **Cabling:** All new cabling must be Plenum-rated (where required), labeled at both ends, and dressed according to industry standards (BICSI/AVIXA).
 - **Programming:** Complete custom UI design for touchscreens and logic programming for the Simple/Advanced mode toggle.
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5. PROJECT TIMELINE

- Work is assumed to take about two weeks to complete
 - We have a four week window to use: 13 July 2026 to 7 August 2026
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6. PROJECT COST

- What is your price to implement your proposal
 - List any annual software license or maintenance fees
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PROPOSAL SUBMISSION

Vendors must submit:

1. **Narrative of system:** How it will meet the needs of the Yarmouth Schools and how it will be able to address other system deficiencies with future build out.

2. **Itemized Equipment List:** Documenting the manufacturer and model for all proposed "equivalent" items.
3. **Labor Breakdown:** Specific hours allocated for installation and system programming and training
4. **Project Timeline:** Commitment to a completion schedule for Phase 1.
5. **Service time/location:** Where is your closest service location and what is your standard response time for calls
 - a. **Staff:** How many service staff at at your nearby locations and are certified/trained on the equipment and systems in your proposal
6. **Cost:** Project cost and any required annual fees if applicable