



*It's pointless to speak if you can't be heard.*

## Scope of Work – AV Upgrades

**Audio Architects** proposes to provide and install upgrades to your classroom system consisting of a new Touch Screen control system, Blu-ray/DVD player, Surround sound receiver, and HD Laser projector. Audio Architects shall provide all the wire, materials and programming necessary to install the system consistent with industry standard practices.

*This is a budget proposal. Specific models will be chosen after the budget is approved.*

**The speakers shall be installed in the following manner:**

**The Existing QSC speakers** shall be reused in their existing locations.

**The electronics shall be installed in the following manner:**

**All electronics** shall mount in the existing cabinet.

**The Denon Surround Receiver** shall provide audio and video inputs and outputs compatible with UHD/4K.

**The Denon DN-500BD Blu-ray player** shall provide both playback of DVDs and Blu-ray discs.

**The Crestron DMPS-150 system** shall be provide all control processing and shall include all control inputs and outputs to automate show playbacks, video, lighting, screen, shades, audio playback, power relays. Unit shall also replace existing paging mixer/amplifier.

**Touch Screen panels** shall replace push button panels. One 7" panel at the rack, one 7" panel at the classroom and one 4" panel at the commons staff area.

**The Extreme On-Line UPS** shall be replaced with a new/current version

**The front of room PC input** shall be upgraded to accommodate HDMI in addition to VGA.  
Wiring shall be upgraded to match.

**The following existing electronics** shall be reused:

- Alcorn solid state video and audio players
- Listen Assistive Listening transmitters (2) and all receivers
- CueServer CS-800 Sub-controller
- Biamp Amplifier and Bag End Infra Processor
- Furman Master On/Off Surge Protection
- The rack and most rack accessories
- Contemporary Research Caption Decoder
- Lutron Lighting dimmer



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**Addendum #1**

**The following projector will be included:**

**The Vivitek DU Series 6000 Lumen Projector** employs a Laser light engine rated for up to 20,000 hours without lamp replacement. All current video types can be accommodated. The existing screen shall be reused. A new ceiling mount shall be provided.

**The following shades will be included:**

**The existing MechoShade Systems drape material** is covered by a 25 year factory warranty so only the motors will be upgraded to the much quieter IQ-2 model. Associated controls will be updated to match. Motors are covered by a Five Year factory warranty.

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**Audio Architects Inc.** will provide complete “as built” drawings, labeling, documentation, owners manuals, one year parts and labor warranty on the additions to the system, and “hands on” training for NPS personnel.

**NPS Grand Portage National Monument** will provide any high voltage work required.

*Construction shall be "on-site", which will require up to five days of down time for this room.*

**The budget for this upgrade is \$42,000.00 based on completion in 2017.**