

Case Study:

Rock aNd Roll Hall of Fame & Museum, Cleveland Ohio

Auralex Acoustics, Inc. recently provided acoustical treatment services and products for multiple rooms at the **Rock aNd Roll Hall of Fame & Museum** in Cleveland, OH.

The treatments were installed in the dual theaters of the **Mystery Train** exhibit, the **MTV Video Tree Room** and the **Alan Freed Radio Studio**. These rooms were all treated with **Auralex's ELITE Stretched Fabric System**.

Auralex was originally contacted by *Broadcast General Store*, an Auralex dealer, and John Grayson, Donor Manager of the Rock aNd Roll Hall of Fame & Museum, to address the acoustical and aesthetic challenges presented by the existing treatments in the Mystery Train theaters. The Mystery Train exhibit is a two-part movie played in automated, side-by-side theaters that introduces people to the Rock Hall, the history of Rock and Roll, and the Hall of Fame itself.

It is the first exhibit in the Rock Hall and is where all of the patrons are directed to start their tour. Each theater is equipped with full 5.1 Surround Sound and three high-resolution projectors that combine images on to a curved 16' wide screen. Each theater seats approximately 50 people.

The original installation was comprised of 1" thick, vinyl-covered glass fiber panels on the walls, and a ceiling treatment consisting of 2" thick fabric-covered glass fiber "clouds" mounted on an aluminum tracking system.

The concerns and challenges presented to Auralex by the Rock Hall staff included:

1. the existing surround loudspeakers were covered with the 1" thick fiberglass panels, thus inhibiting their performance
2. the subwoofers were not isolated from the building structure
3. the existing vinyl treatment was badly worn, uneven, and coming loose in places
4. all the finishes were stylistically "dated"

Additionally, the Rock Hall requested the appearance and acoustics of the new treatments adhere to the following standards:

1. the new finish was to be more visually consistent than the existing panels
2. the new finish was to be easily changeable in the event the aesthetic needs evolved in the future
3. the acoustics of the theaters should not be altered unless the alterations provided specific improvements to the acoustical signature of the room.

Acoustical Treatment of the Mystery Train Theaters



The first order of business was the removal of the existing treatments and the subsequent renovation of the Mineral Fiber and framing underlayment to accommodate the ELITE Fabric system.

The patented fabric retention channels were then installed throughout the room, followed by the appropriate amount of absorptive and diffusive materials, prior to the installation of the fabric. A two-tone fabric finish was selected for the side and rear walls, offering a positive visual effect.

The front wall incorporated a dark fabric so as not to undermine the visual experience of the 16' wide screen. The ceiling treatment was designed to match the top half of the side and rear walls and also to retain the "cloud" appearance of the original treatments.

This effort involved considerable innovation to ensure the existing tracking system was able to accommodate the ELITE retention channels.

The Results

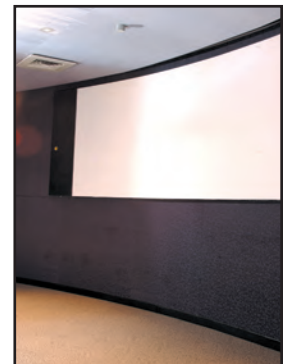
The acoustical signatures of both theaters have been retained and in fact, improved by the addition of subwoofer isolation platforms, enhancing the low frequency response of the surround sound system.

Also, the surround loudspeakers were covered with the ELITE fabric treatments but NOT the absorptive materials, thereby obscuring their presence visually but not acoustically.

There is now over 3,000 square feet of walls and ceilings in the two "Mystery Train" theaters covered with the Auralex ELITE Stretched Fabric System.

Of greater importance to the Rock Hall staff, the aesthetics of the Mystery Train theaters was greatly enhanced. "This looks 10-fold better than it used to, and sounds fantastic as well", says Rob Weil, Senior Manager, Production and AV, at the Rock aNd Roll Hall of Fame & Museum.

The ELITE Stretched Fabric System provides the Rock Hall visitors with an aesthetically pleasing environment while allowing the Museum an easy avenue for removal and replacement of the finish in case of possible future design changes.



Alan Freed Radio Studio



Auralex Acoustics was approached to participate in the overall re-design (*and subsequent dedication*) of the **Alan Freed Radio Studio** at the **Rock aNd Roll Hall of Fame & Museum**.



Because this studio would be used both as an exhibit for the museum patrons to view as well as a working radio studio for visiting broadcasters, the goals were twofold; to design a visually appealing work area by aesthetically changing the studio appearance, and at the same time acoustically treat the room to achieve a "true" broadcast studio sound.

Auralex treated 65% of the room with the **ELITE Stretched Fabric System**. The remaining 35% was treated using a combination of **Auralex DST Studiofoam®**, **LENRD® Bass Traps** and a specially designed **Rock aNd Roll Hall of Fame & Museum logo cut out of Auralex Studiofoam®**.

The Results

The **Alan Freed Radio Studio** was dedicated at an industry gathering in March of 2003. Broadcasters and engineers in attendance were invited to tour the studio and all enjoyed the upgraded performance and setup of the studio.

Subsequently, the studio has been steadily used by radio shows from around the country, including industry legend **Casey Kasem**.

MTV Video Tree Display



The **MTV Video Tree** pays tribute to the artists who began the music video revolution.

As with the **Mystery Train Theaters**, the existing treatment needed to be removed. Additionally, a circular hand rail had to be removed with the intention of replacing it after the installation of the **ELITE Stretched Fabric System**.

Challenges in this phase of the installation included the rounded nature of the display. The **MTV** exhibit is housed in a rotunda room at the Rock Hall. The **ELITE** channel had to be installed so that the curvature of the room would be maintained.

The room itself was designed utilizing a 1" **Auralex Sonofiber™** acoustic absorption material.

The Results

The **MTV Video Tree** exhibit now boasts a deep, rich coloring that enhances the viewer's eye when watching the presentation.

The back-lighting on the hand rail subtly illuminates the fabric-covering while the hidden acoustic treatment underneath eliminates any harsh acoustic reflections in the room, creating a pleasant listening and viewing environment for the patrons of the **MTV Video Tree** display.

