BUILT ENVIRONMENT CASE STUDY

Academy Museum of Motion Pictures

Cinema Sound for a New Museum Landmark

VISION

Create exceptional cinema sound and accessible audio environments within a museum dedicated to motion pictures and public programs.

PARTNERSHIP

Coordinate with The Academy, architects, theater consultants, engineering teams, and exhibit designers to integrate acoustic, AV, and assistive listening systems across all museum spaces.

VALUE-ADD

Deliver theater acoustics, cinema audio, sound isolation, mechanical noise control, and custom induction loop strategies across a complex museum environment.

The Academy Museum of Motion Pictures is a 300,000-square-foot cultural destination in Los Angeles created by transforming the historic May Company building into a museum and adding the spherical David Geffen Theater. The museum brings together cinema presentation, exhibitions, education, public programming, events, and visitor amenities within a landmark architectural setting.

Jaffe Holden, a Trinity Consultants team, provided acoustics and AV design across all museum spaces, including the 1,000-seat David Geffen Theater and the 288-seat Ted Mann Theater. The work encompassed cinema presentation, exhibit audio, assistive listening, mechanical system noise control, and both front-of-house and back-of-house systems within a museum dedicated to the art and experience of motion pictures.

CLIENT
Academy of Motion Picture Arts & Sciences

ARCHITECT
Renzo Piano Building Workshop

ARCHITECT OF RECORD
Gensler

THEATER CONSULTANT
Arup Theater Consultants

EXHIBIT DESIGNER
WHY Architects

ACOUSTICS & AV
Jaffe Holden, a Trinity Consultants team

Trinity Consultants JaffeHolden

VISION

For a museum dedicated to motion pictures, sound is central to how visitors encounter the work. The theaters needed precise cinema audio, presentation quality worthy of the Academy, acoustic separation from surrounding activity, and the quiet conditions that allow cinematic moments to land with full impact. Galleries, exhibits, ticketing areas, and public programs also called for audio systems that could serve visitors with different listening needs.

Our work focused on cinema sound designed to strict acoustic and AV standards established by the Academy and their technical committee. The team also advanced inclusive audio design throughout the museum, considering how visitors using T-coil hearing aids would experience exhibit sound, public programming, and cinematic spaces. That approach extended the idea of listening beyond the theaters, making audio access part of the larger museum experience.

PARTNERSHIP

The project team included Renzo Piano Building Workshop, Gensler, Arup Theater Consultants, WHY Architects, and a broad engineering team. We coordinated across architecture, theater planning, structural design, mechanical and electrical systems, and exhibit-related requirements so acoustic and AV decisions aligned with the building's many public functions.

The theaters required focused coordination because they sit within a larger museum environment that includes galleries, circulation, event areas, and the rooftop event space directly above the Geffen Theater. Achieving acoustic separation between the 1,000-seat theater below and rooftop activity above was a significant design challenge, requiring study of both horizontal and vertical adjacencies. Inclusive audio added another layer: induction loop systems depend on how sound is delivered to the listener and how magnetic fields behave in relation to adjacent spaces, and Jaffe Holden mapped those relationships across the full museum.

VALUE-ADD

The David Geffen Theater and Ted Mann Theater were designed for high-quality cinematic sound distribution through multi-speaker systems and custom acoustic treatments. The Geffen Theater includes approximately 40 speakers and the Ted Mann Theater approximately 30, each supporting detailed cinema audio. Both theaters feature Dolby Atmos systems developed in direct collaboration with Dolby's engineering team in Los Angeles, making them showcase installations for spatial cinema sound.

Sound isolation was a major part of the theater design. The Geffen Theater sits directly below the rooftop event space, and the acoustic separation strategy helps preserve the focus and detail of film presentation even during simultaneous events above. We also addressed mechanical system noise control so quiet cinematic moments could remain at NC-15 levels—conditions that allow the full dynamic range of film sound to be experienced.

The project's inclusive audio design brought added nuance to the visitor experience. Induction loop systems were designed to transmit sound directly to T-coil hearing aids in theaters, public spaces, ticketing and information booths, and exhibit areas. In more complex cinematic exhibits, we developed strategies that could translate layered sound environments for T-coil users, including installations with multiple speakers, location-specific directed audio, and ambient sound beds. For installations such as Behold and the sound bath featuring composer Hildur Guðnadóttir, the team developed custom mixes specifically for transmission through the induction loop system.

The Academy Museum is a layered sound environment because its mission depends on cinematic presentation, exhibit storytelling, public programming, and access. Our work gave the museum the acoustic precision, isolation, AV capability, and inclusive audio design required for an institution devoted to motion pictures.

ABOUT TRINITY CONSULTANTS

Trinity Consultants, a leading global environmental consulting firm, provides services and solutions in the EHS Regulatory Compliance, Built Environment, Life Sciences, and Water & Ecology markets. Founded in 1974, Trinity has the technical expertise, industry depth, and capabilities to help clients achieve their goals across the natural and built environments.