

Mitigation plan white paper  
prepared for



**Mayflower Inn & Spa**

AUBERGE RESORTS COLLECTION  
WASHINGTON, CONNECTICUT

## **Mitigation plan, elements and procedures for sound control and localization.**

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**Purpose:**

The purpose of this white paper is to outline and propose measures to mitigate extraneous audio levels of the event tent on the northern section of property of the Mayflower Inn and Spa in Washington, CT.

In preparation of this paper, two separate site surveys were conducted of the subject property. These surveys were done under varying conditions to collect physical and acoustical measurements, gather technical as well as anecdotal data, document any reported concerns and observe real-time conditions. We have rendered a report from our findings and used them to create a design plan that will fulfill the audio and technical needs for current and future events while satisfying the sound level parameters set forth.

The design is based upon a three-phase mitigation plan. The plan's phases include the installation of a proprietary, permanent "house" audio system designed to localize the sound within the tent space, creation of physical barriers to both block and absorb sound energy beyond the tent perimeter and the control and monitoring of all audio operations for any events being held in the event tent.

**Phase 1 – System design, procurement and installation:**

To accomplish the electro-acoustic portion of the plan, the Mayflower will engage a professional audio contractor to procure and install a permanent distributed audio system based on the design plan. The system's architecture will be proprietary in that it will be custom-built for the event tent while also being holistic in that all components are engineered to work together for optimum results and control. The system control will employ several technologies including digital signal processing for precise audio level control, frequency-agile compression and limiting, real-time metering, historical monitoring and system response telemetry. Multiple small format loudspeakers will be focused and individually controlled providing a near-field audio environment throughout the event space. The speaker system can be configured to the event requirements via programming with the parameters able to be adjusted in real time by the on-site audio technician (as described in Phase 3). Configurations will include spoken word, background music, and fill for live music performances by bands and DJs.

As a fill system for live performances, a portable small format speaker system will be set as a main system at the band/DJ area. This additional system will help in the localization of the sound source (band/DJ), limiting the need to increase overall level as lower levels distributed through the multiple speakers will provide sufficient, uniform acoustical energy throughout the tent/event space.

**Phase 2 – Physical mitigation through barriers and absorption:**

Passive sound reflection and absorption barriers are the second element of the proposed design. An inverted plexiglass shield behind the band stage will be deployed by the contractor's technician for live band events. This barrier will be a first step in physically localizing and containing the ambient sound energy associated with a live band. A secondary barrier will be created on the southwest ridge of the hill leading to

the property line. This barrier's construction details will primarily be based on best practices for sound mitigation and will secondarily include collaboration with the property's architect for environmental, aesthetic and building code considerations. Ultimately, this barrier will have sufficient properties to be a final absorbing and reflecting structure, limiting any residual sound to the property line.

**Phase 3 – System setup, control and monitoring:**

As the final element of this proposal, the Mayflower will engage a professional audio contractor to provide technical support and engineering for every event being held in the event tent. Whether a band, DJ or spoken word, all technical requirements will be advanced and controlled by the contractor whose primary responsibility is to maintain the parameters set forth. The contractor will provide technicians who will set up and control the installed system as well as facilitate/provide the integration of any additional equipment as the event requires. Preferably the contractor will be the same that designed and installed the system so the assigned technicians will have an in-depth, working knowledge of the entire system and its functional goals. The monitoring aspect of the contractor's responsibilities includes consistent monitoring at the property line and grounds. This will be accomplished with a multi-point measurement system that will provide the technician with instant, relevant data enabling him/her to act on said data in real time to again further mitigate and control extraneous audio.

In closing, this mitigation design plan is comprehensive in scope and adheres to industry best practices. Its purpose is to be as clear and descriptive as possible but if further information or clarification is needed, please feel free to contact me by email, text or phone.

Respectfully submitted,



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