AUDIO VIDEO FORENSIC LAB
3 NEPTUNE RD., SUITE Q14B
POUGHKEEPSIE, NY 12601

SOUND CONTROL PLAN
MELZINGAH TAP HOUSE
#544 MAIN ST., BEACON NY 12508

Overview: The goal of this study and its recommendations are to provide the Planning Board with an understanding of Melzingah's pro-active approach to controlling the sound originating from its outdoor restaurant operations at the Pavilion and Patio areas of the property. Starting in late July of 2018 complaints arose from neighbors of loud music being played outside in the Pavilion. Although the owners were not cited for any violations they wish to take steps to effectively control sound and be good neighbors.

Site Visit: On Monday, January 15, 2019 I met with owner Kevin Collins and site planning engineer Steve Burns at the restaurant in order to develop an understanding of what activities and entertainment occurs at the site as well as gain first-hand knowledge of the proximity of the residential neighbors.

The planned activities at the Pavilion / Patio are those generally associated with restaurant operations, not rowdy bar or loud events such as wedding receptions. On typical weekdays when weather cooperates the pavilion / patio is used for overflow diners and those who wish to enjoy a quiet outdoor setting. On weekends (Fri, Sat, Sun) the attendance is light.

Twenty to thirty patrons are typical and soft entertainment is provided consisting of a singer with acoustic guitar and/or keyboard accompaniment. Pre-recorded background music comes on during musician breaks.

Sound Control Planning: Since the complaints from neighbors are principally related to loud music I have suggested a classical experiential approach to the problem. This means first and foremost controlling sound levels at the source rather than trying to block it with fencing or other obstructions at the perimeter of the property. Here is the basis for this approach: There are several factors which affect the intensification of overall sound (from patrons *and* music) throughout an event. Basically, what happens is as a venue fills with people and music there becomes competition of sorts for intelligibility. Ideally everyone wants to hear themselves, including the musicians but with an improperly conceived sound design there is a "race to the top" so to speak for volume as people and musicians get louder in an effort to improve intelligibility.

There are two key elements to approaching this problem. First is the selection of a proper sound system which delivers evenly distributed, natural, *low-level* sound to a near field audience and the musicians. This is exactly our application. For this I have selected the portable Bose L1 line array. Placed behind or to the side of the musicians, the L1 is a compact sound system which uses proprietary Spatial Dispersion technology to deliver clear, tonally balanced sound to everyone in the immediate area. The system is not intended to project to large audiences or over far distances. This is the hallmark of the world-famous Bose L1 sound. This amazing feat is accomplished through six tiny 2" speakers in a slim column mounted on a low frequency floor unit. I own several of these myself and it is astonishing how well they serve this purpose.

The speaker column is 78” high and is designed as segments so the top part containing the speakers can be lowered for more intimate settings. See link https://www.bose.com/en_us/products/speakers/portable_pa_speakers/l1-compact-system.html#ProductTabs_tab1

Secondly, I propose the creation of a “musician’s nook” in the eastern most corner of the pavilion. This corner will be flanked with broadband sound absorbing panels and the Bose L1 will be placed at the apex of this corner. This serves two purposes. One, to soak up sound so that the musicians can hear themselves consistently no matter how much interference sound the patrons make without turning up the volume. And two, of damping sound from the musicians themselves. Once everything is installed the sound volume of the Bose L1 should not need to be raised as people arrive. See site plan for details.

Finally, there is the matter of meeting Beacon’s Noise Ordinance. We will accomplish this by adjusting the sound level, tuning the system at an upcoming event and measuring it at the perimeters of the property. Once set, the staff will be instructed not to raise it. As I said earlier this is an experiential approach. It’s the best way to evaluate an outdoor setting and ascertain the effectiveness of our measures as we go. I am sure we can achieve the goal of operating within the limitations set forth by the city and if further mitigation adjustments are needed, we will make them.

Testing: At the site visit I brought my portable Bose L1 sound system and generated broadband pink noise for measurement around the perimeter of the property to help develop a plan of improvements. These measurements inform me generally as to how sound propagates around the site.

While not demonstrative of an actual event they help with setting up proper loudness and equalization levels once the recommended Bose L1 is purchased and the panels are installed. Actual operational measurements will be taken when improvements are made.

Report prepared by:

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