

SONĀRE

The Environmental Acoustics Magazine

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Premiere Issue
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WHY ACOUSTICS MATTERS IN...



Banks

Many clients use ATMs and online services to handle routine financial transactions, but advice provided at the branch is still important. Staff consult on mortgages, investments, business activities, and more. These in-person meetings present the opportunity to strengthen existing client relationships and make new ones. They also involve highly confidential information, making speech privacy a priority. Though conversations are often brought from the open branch environment into an office, closed doors and even deck-to-deck walls are usually not enough to provide the required level of speech privacy. Furthermore, studies show that the ability to overhear conversations and other noises increases errors. These issues are especially relevant in the banking sector, where accuracy forms the basis of client confidence.

Call Centers

Call centers are often an organization's first line of contact with customers, significantly impacting satisfaction and loyalty. They're also one of the most stressful environments in which to work. The demands of serving clients in real-time and meeting performance targets lays the foundation. Add a problem such as poor acoustics to the equation and stress levels climb even higher, contributing to errors, absenteeism and turnover rates. And because it affects representatives' performance, noise can ultimately impact a customer's experience on a given call. Stressed employees are also less able to manage negative emotions or display empathy. Improving acoustics helps representatives provide customers with efficient, accurate and professional attention.

Offices

Research shows that poor acoustics is a leading cause of workplace dissatisfaction and one of the most significant factors affecting employee performance. If you work in a modern office, you can likely relate. Usually you're spending time on work that requires concentration. Disruptive noises and conversations make tasks harder to complete. Errors happen more often. That adds to stress. And it takes more effort to focus, which tires you out, affecting your mood and, ultimately, your productivity. In a study by Interface, 69 percent of workers in the US, UK and Australia stated that noise negatively impacts their creativity and concentration. Many are disturbed by coworkers talking in surrounding areas (71%), as well as on telephones (67%). Over half also report that office noise makes them edgy and irritable.

Medical Clinics & Dental Offices

**For hospitals, see Creating the Quiet Zone on pg. 66.*

Often, areas used for the input of medical and financial information, and where face-to-face and telephone communication takes place, are located near patient waiting areas. Even when conversations are brought into consultation or treatment rooms, sounds can leak through penetrations in the walls' structure. Patients know that if they can overhear discussions occurring in adjacent areas, others can hear them as well, making them uncomfortable and less likely to discuss private matters with their caregiver. The sounds patients overhear can also become the context for their healthcare experience and may create or amplify feelings of anxiety.

And because noise is disruptive, staff may have difficulty concentrating on their work, placing the quality of care at risk.



Law Firms

Though conversations usually occur in private offices or meeting rooms, walls typically aren't enough to ensure confidentiality. Poor door seals, breaks in plenum barriers, and improperly designed or treated HVAC components



can provide clear paths for overhearing discussions. Noise is yet another concern. Numerous studies show that it disrupts concentration, reduces productivity and increases errors, which can be highly detrimental to a profession that requires good listening skills and detailed information to be taken. Ultimately, these issues can impact client satisfaction and even affect the legal proceedings. Taking steps to protect speech privacy and create a positive acoustic ambience is a sign of control and professionalism that helps reinforce clients' confidence in the firm.



Courthouses

While administrative areas have many of the same acoustic requirements as offices, courtrooms have more complex needs. There must be high speech intelligibility from the judge's bench and witness stand to ensure that participants can accurately hear and record the proceedings; however, sidebar conversations and bench conferences require speech privacy. Installing sound masking above the jury box can help satisfy these competing requirements. As recommended in the *U.S. Courts Design Guide*, the judge can activate the masking using a switch, which simultaneously mutes microphones. Speech privacy is also important for jury deliberation rooms, waiting rooms and judge's chambers. Privacy is not only vital to the integrity of the proceedings, but also to participants' ability to candidly discuss the case.

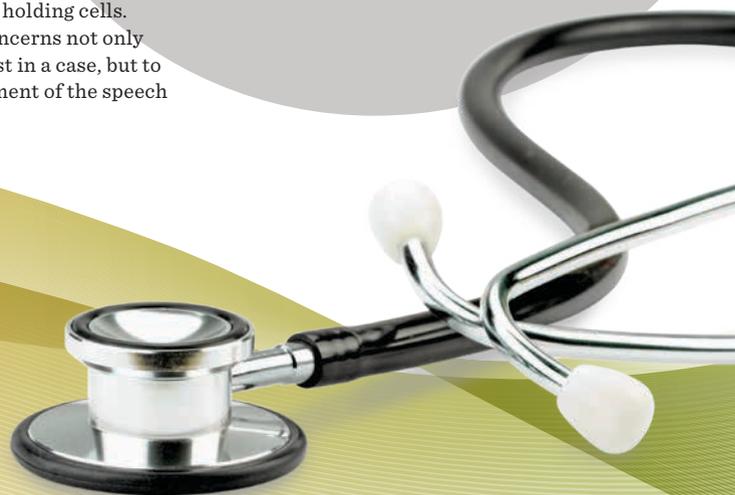
Law Enforcement Agencies

Law enforcements agencies require speech privacy in processing areas and interview rooms, as well as between holding cells. These security-related concerns not only apply to persons of interest in a case, but to the potential for infringement of the speech privacy of a witness.



Libraries

Today, libraries serve many diverse functions, hosting activities such as workshops, meetings and social gatherings while still retaining their core role of providing patrons with reference materials and a comfortable environment in which to read, write and study. Unfortunately, these activities don't always mix well when it comes to acoustics. At the same time, the demands created by these new uses make it more challenging for staff to enforce a policy of silence. The predominantly open environment also poses challenges to conventional noise control methods. Creating an effective acoustic environment can help marry traditional uses with new and ever-expanding services, and ensure the facility is well-suited to the demands being placed upon it.





Military Facilities

Without proper treatment, speech causes vibrations on windows, doors, ducts and other structures, which can be picked up by probes or microphones and translated into intelligible speech. These types of listening devices are difficult to detect because they can be used at a considerable distance from the target facility. If an organization suspects it might be subject to such a threat, a sound masking system can be connected to transducers, which transfer the masking sound to the aforementioned structures, impeding the use of audio surveillance equipment. In this case, it's key to ensure the system produces a truly random masking sound (i.e. rather than on a loop, even a long one), hindering the ability to filter it out of recordings.

Leased Spaces

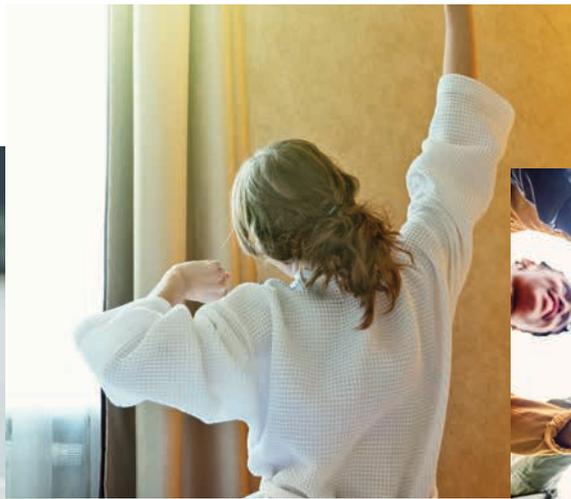
Anticipating your tenants' needs and improving their experience in leased space is critical to success in today's commercial real estate market. Price and location don't always top their list of criteria. They're looking for quality environments that will enhance their business performance and they'll comparison shop variables known to impact employee output and morale. After all, the cost of real estate is far surpassed by salaries and benefits, and an uncomfortable environment can lead to lower productivity, a dissatisfied workforce and higher turnover. Improving acoustics can help build a positive reputation for the building, retain tenants and increase their perception of the value they're getting for their money. In fact, a study by the Urban Land Institute found that developers of healthy indoor environments that support occupant well-being reported better than expected leasing.

Co-Working Spaces

If independent occupants share the same space, the level of noise and speech that travels through shared walls can be an even greater problem.

Dealerships

Sales professionals are the dealership's first line of contact with customers. Their success and, consequently, the dealer's, depends on their ability to win their customer's trust. While open plan environments provide a welcoming atmosphere that's well-suited to showcasing new models, they can also compromise other features of value during the sales process, such as speech privacy. Customers expect conversations concerning their finances and insurance to remain private. This level of protection is also indispensable for sales professionals to negotiate effectively and close the sale when other visitors are present. Individual offices are a rarity and typically not built to high performance standards. In any case, sales professionals spend the majority of their time in the showroom.



Schools

When contending with high noise levels, children tend to tune out speech, and because their language development hasn't matured, they lack the experience required to fill in the gaps or put what they do hear into context. A voice amplification system allows the teacher to use a normal voice level and easily be heard throughout the classroom. The activities taking place in other areas such as administrative, nursing and counseling offices have different acoustic needs. Conversations between students, parents and staff members can involve academic, health and financial information, as well as other sensitive topics. The acoustics in areas such as libraries can impact academic performance as much as those in classrooms. In these areas, conversations and noise are distracting to students engaged in activities that require a high level of concentration, such as reading, writing and studying.

Hotels

Acoustics pose a significant challenge for hotels, with noise regularly topping the list of complaints across all property types. Unwanted sounds irritate guests during the day and affect their ability to sleep long after they've otherwise adjusted to their new surroundings. The financial impact can be substantial. Following an unpleasant stay, dissatisfied guests are less likely to return to a property and more inclined to post a negative review online. As a result, the hotel's reputation and bookings can suffer. There are also direct costs associated with appeasing unhappy visitors, such as offering discounts and vouchers. Noise can also have detrimental effects while guests are awake, impacting their enjoyment of the property and their overall sense of privacy.

Worship Facilities

Worship facilities are multipurpose spaces that host a variety of activities, often with conflicting acoustic needs. Understandably, most strategies focus on ensuring members can easily hear the service; however, counselling offices and internal administrative areas benefit from acoustic privacy and noise control. Addressing these requirements is critical to creating a positive experience for members.

Senior Residences

Noise can raise blood pressure and stimulate the nervous system to release stress hormones. It has a particularly powerful effect on those with Alzheimer's and other dementia, triggering agitation and even aggressive behavior. It can also decrease the caloric intake of this group, which is already at higher risk for weight loss. In addition, noise prevents residents from getting the rest they need. While not responsible for all awakenings, its contribution can be significant because the elderly are more sensitive to these types of changes in their environment. Sleep deprivation can lead to problems during the day, such as agitation, delirium, memory issues, depression, and decreased pain tolerance, as well as increased risk of falls. It can also aggravate existing health conditions. Speech privacy is another acoustic concern, particularly in and around administrative areas.



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