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Achieve privacy in law, medical space

Within law offices and medical offices, privacy is among the highest priorities. Confidential conversations with clients and patients must not be overheard by curious ears. Even accidental eavesdropping can compromise a mandated confidence. In addition to privacy concerns, conversational distractions will reduce the productivity of workers in adjoining areas.

Today's commercial office buildings and typical interior construction methods do not provide for adequate privacy. Offices and conference rooms frequently allow conversations to be overheard even when doors are closed. Precious construction dollars are frequently spent trying to improve privacy levels. Unfortunately, the money is often spent on "fixes" that are not very effective.

Sound travels as energy from the talker's mouth to the listener's ear. Within a fraction of a second, the sound of speech strikes every surface of a room multiple times. This invasive energy finds its way through the acoustical weaknesses in the built environment.

To visualize these weaknesses in office construction, picture a typical office or exam room. One wall is exterior glass, two walls are Sheetrock or demountable partitions that are shared



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with adjoining offices and one wall has a door and a glass window to the corridor. Looking up, there is an acoustical ceiling with lights, an HVAC-supply diffuser and a return air grill.

Taking the exercise one step further, imagine that we can flip the office upside down and fill it with water. Our office is now an aquarium and it is leaking badly. We are losing water fast as it pours out of the big holes in the ceiling. But let's focus on some of the other, less obvious leaks.

The union of the acoustical ceiling and the walls provides a thin air gap. At every point that a piece of metal ceiling grid crosses over the top of the wall, water passes easily. There also is an obvious gap where the walls meet the exterior window frames. These two leaks alone will allow enough sound transfer to compromise privacy within the space.

When building owners and managers try to overcome

these problems, the usual recommendation is to continue the walls through the ceiling to the underside of the building structure. This can prove to be an expensive change. Not only does it require additional material for the walls, it also increases the requirements of the HVAC system. Additional ducts, VAV boxes and controls will be required to condition the air in the more physically isolated space. The additional costs will not improve the other weaknesses in the room. The net improvement in privacy will be minimal.

The most effective way to improve privacy in offices and conference rooms is to install a sound masking system. Sound masking is an electronic system that provides a highly precise background sound in the office. The sound is shaped to interfere with our ear's ability to articulate speech. The result is that the sound that transfers through the many physical leaks in the office can't be understood by the ears on the other side of the wall.

To understand how sound masking works, picture yourself at the beach. The surf is providing a pleasant background sound. You can easily talk with your friends. But when you walk just 10 or 15 feet away, you will have a hard time under-

standing the conversation.

Sound masking works similarly; however, sophisticated electronics are used to shape the sound so that it is very effective at low volume. The result is that a sound much softer than that of the surf will provide increased privacy throughout an office.

This substantial increase in privacy can be achieved for far less than the amount needed to augment privacy through physical construction.

A quality sound masking system consists of speakers installed above the acoustical ceiling or below a raised access floor. The speakers are spaced to provide uniform sound delivery throughout an office suite or building. The speakers are wired back to a central component group usually located in a server room.

When installed and properly tuned, sound masking is an unobtrusive tool to increase privacy. Confidential privacy can be achieved between offices and from offices to corridors and public areas.

Good privacy can be achieved without increasing construction costs. In fact, when office acoustics are brought into the planning process, increasing privacy can reduce construction costs.▲