Sound Masking 101

Reduce Noise Distractions

Protect Speech Privacy

Increase Workplace Productivity

TORRENCE
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Sound • Video • Security

Sound Mask-ing
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The process of adding to an environment a low level of unobtrusive background sound engineered to protect confidentiality and reduce distractions by reducing the intelligibility of speech, thus making the acoustical environment more comfortable.

Sound Masking is a Critical Component of Acoustic Design

When designing an optimal acoustic environment, architects consider a variety of elements to address noise control and speech privacy. Elements added either Absorb, Block, or Cover sound, and are collectively called the ABC's of acoustic design.

A **Absorb:**
Acoustic wall panels, carpet, and ceiling tiles help absorb excess sound

B **Block:**
Solid barriers, partitions, and walls help block excess sound

C **Cover:**
Sound masking helps cover up excess sound

All of the ABC's of acoustic design can be used together or individually to achieve the desired acoustic environment, but absorbing and blocking materials are costly and underused. Sound masking, on the other hand, is a low-cost option for creating acoustical environments that both reduce noise distractions and increase speech privacy.
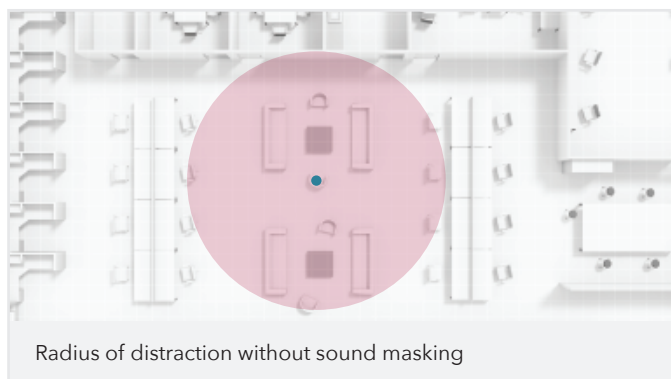
Adding Sound Makes Speech Less Intelligible

Adding sound to a space actually makes the space seem quieter. It sounds counter-intuitive, but it's true. This is because the added sound reduces the intelligibility of speech. When you can't understand what someone is saying, their words are less distracting – in fact, you probably don't even notice them.
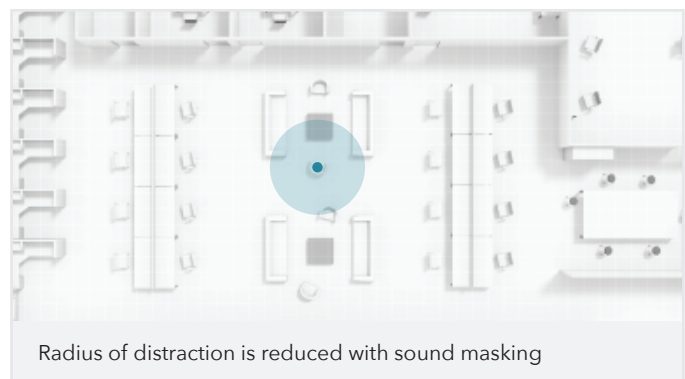
Here's an example of sound masking in everyday life. Have you ever had a conversation with someone while you are washing dishes and they are on the other side of the kitchen? When the water isn't running, you can hear the other person's words perfectly. When you turn the water on it becomes much harder to hear them and understand what they are saying. The person isn't speaking more softly, but they sound as if they are. This is because the noise of the running water is "masking" the sound of the person speaking to you.

Sound masking mimics this phenomenon on a much more sophisticated and effective scale. By adding ambient sound to an environment, (such as professionally engineered sounds that sound similar to water flowing or airflow) you help mask the other noises in the environment, making them less distracting. Sound masking doesn't eliminate all noises in an environment; it simply reduces the area where human speech is intelligible and distracting. We call this area the radius of distraction.

Radius of distraction without sound masking

Radius of distraction is reduced with sound masking

Once masking is added, it becomes more challenging to understand conversations from across the room, and thus makes it less likely that conversations will distract you.

Why Do You Need Sound Masking?

Sound Masking Protects Confidentiality and Reduces Liability

- Closing the door to an office no longer guarantees speech privacy, in fact, it's probably worse because closing that door provides the *illusion* of privacy.

- Many private conversations could be HR nightmares if overheard by the wrong people.

- **Providing speech privacy is often encouraged, or outright mandated, by the legal and regulatory environment:**

HIPAA	HIPAA – Mandates that all employers (not just hospitals) "take reasonable safeguards to protect the privacy of protected health information."
GLBA	GLBA – In many ways, the Gramm–Leach–Bliley Act (GLBA) is the HIPAA equivalent for the finance industry. GLBA requires financial institutions to protect their client's non-public financial information.
U.S. GREEN BUILDING COUNCIL USGBC	LEED – Ensuring proper speech privacy and sound isolation is a component of LEED certification. LEED is a set of rating systems for the design, construction, operation, and maintenance of green buildings, homes and neighborhoods. Many U.S. federal agencies and state and local governments require buildings to attain LEED certification.
HCAHPS Hospital Consumer Assessment of Healthcare Providers and Systems	HCAHPS – In the healthcare industry, the Hospital Consumer Assessment of Healthcare Providers and Systems Survey (HCAHPS) provides scores to hospitals based on a variety of criteria, including "quietness of patient environment." Hospitals with low HCAHPS scores risk loss of government funding and damaged reputation.
FERPA	FERPA – In the education industry, the Family Educational Rights and Privacy Act (FERPA) mandates that colleges and universities take all reasonable efforts to safeguard student information including how the information is collected and disseminated.