




One crisis... averted.

FACILITY MANAGEMENT JOURNAL

HOME ARCHIVES FM RESOURCE SUBSCRIPTIONS MEDIA RESOURCES CONTACT US

SEARCH



Advertisement

Creating a Quality Workspace: the Sound of Silence

Jennifer J. Bergantino

"It's too noisy!" "It's too quiet!" are often-heard complaints about the exact same space. Overheard conversations create privacy issues for the talkers and productivity issues for the listeners. Spaces with no background noise suffer from "acoustical startle"; the slightest noise is distracting and breaks concentration.

Quality workspaces sound good, look good and are comfortable, productive places to work and at the same time balance cost considerations. Trends in architectural aesthetics combined with cost-cutting measures such as shrinking workstation size and reducing partition heights create an acoustical challenge for many offices. This challenge can be met with a simple solution—sound masking.

Sound masking (commonly, but inaccurately, referred to as white noise) is the addition of sound to improve workplace acoustics. It's counter-intuitive but it really works. Imagine a child with a flashlight in a darkened room. She is flicking the light on and off. Everyone notices.

Now imagine the lights fully turned on—the flicking flashlight is no longer noticeable. This is how sound masking works. The result is improved productivity and better privacy, while balancing costs without sacrificing aesthetics.

Any noise will mask unwanted sound if it's loud enough, but not any sound will do. We have all experienced the privacy of a crowded restaurant, when your dinner companion can't even hear you speak—a bit too much privacy. The ideal masking sound has qualities that allow it to be as quiet and unobtrusive as possible while still getting the job done.

In a crowded office it may be the content of an overheard conversation that's more distracting than the noise itself. It's difficult to concentrate when fellow employees are gabbing about weekend exploits or comparing notes on favorite sports teams. Conversation needs to be masked, so the ideal masking sound is one that mirrors the human voice. Normal conversation, if run through a frequency filter, produces a well-studied pattern referred to as the masking spectrum. This is the sound that good commercial sound masking systems produce. It is pleasant, unobtrusive and easily fades into the background.

ADVERTISEMENT


Big news overhead.

Shedding some years' that the world's premiere roofing and waterproofing solutions installed under a new name: Sika Sarnafil. That's because Sarnafil—proven and high-quality systems for over 40 years—is now part of Sika. Everyone's helped the world's leading roofing manufacturers and a global leader in construction solutions. At Sika Sarnafil, we still deliver the same time-tested products and enjoy the security coverage you've come to rely on. But now, we're working together to bring you even innovation, more solutions, and more service. That's our Sarnafil—old name, new name. Now, when it comes to finding new ways to meet your roofing and waterproofing needs, the sky's the limit.




**We Guarantee
Positive
Return
in 90 Days
or
Get 107%
of your
Money Back**

Take your career
in any direction
at Sodexho.



Good sound masking sound is also uniform throughout a space with no "hot" or "cold" spots and is constant, unlike an HVAC system that abruptly turns on and off.

Sound masking is not the only way to address workplace acoustics and unwanted sound. It is however, the most flexible when balancing aesthetics and cost considerations. Acousticians describe the ABC's of workplace acoustics-absorb, block and cover-up.

Absorbing sound is accomplished by using sound absorbing building materials such as high Noise Reduction Coefficient (NRC)-rated ceiling tiles. However, many of today's office ceilings are not made of ceiling tiles. They are open and often made of hard surfaces as a result of renovations (or imitations) of landmark buildings.

Original attributes such as brick walls and exposed wood, metal or plasterboard ceiling, while visually appealing, reverberate or bounce sound back into the space, degrading the acoustics. Other trends such as maximizing natural light with many large windows; lots of glass, skylights and interior domes improve workspace comfort but, like hard ceiling surfaces, wreak havoc on the acoustics. Sound absorptive panels can be affixed to walls and ceiling or absorptive "clouds" can be used with open ceilings, but these solutions can be expensive-and often conflict with the aesthetic goals of the space.

Blocking sound is the second way to address unwanted noise. However, blocking strategies such as higher partitions, walled offices instead of cubicles and moving people further apart, all run counter to today's workplace trends, where "packing them-in" with smaller and smaller workstations often rules the day. Lower partition heights help natural light permeate a space, promote worker collaboration, reduce the boxed-in feeling and allow managers to see what staff is doing.

Another blocking strategy, constructed walls, is costly and reduces future flexibility should the requirements of the space change. Cubicles are easy to reconfigure. Again-trends conflict with acoustical comfort.

Covering-up with an electronic sound masking system works with every new workspace trend. There are several systems on the market today. Each has different attributes and varies somewhat in price. You can expect to pay \$1 to \$2.50 per square foot installed depending on the physical attributes of the space. All of the sound masking systems available today improve workplace acoustics by adding an ambient background sound, most closely compared to air flow, to mask unwanted sounds.

Most people who work in an environment with sound masking don't even notice that the system is operating; that is, until it's turned off. If the system is switched off, every noise from the telephone conversation three cubicles away to the receptionist typing on her keyboard immediately becomes apparent.

Two great examples of sound masking in action are The Williams College Schow Science Library and the Bank of America national helpline call center. Both spaces had acoustical challenges-one too noisy and one too quiet. Sound masking solved both issues.

The Williams College Schow Science Library in Williamstown, Mass., is a library unlike any other. It is comprised of two 6,000 square foot atria with 40-foot ceilings, skylights, and walls made of sound reflective brick, glass and plaster. While aesthetically awe-inspiring, as David Pillachowski, a librarian at the college points out, "Our library was so acoustically lively the students were shushing the librarians."

The problem is similar to many workspaces-it was too quiet. The lack of background noise created unacceptable amounts of acoustical startle and distractions. Every noise was heard, from papers shuffling, and staplers stapling to footsteps. Library patrons' concentration was broken by each of these unavoidable sounds. Management explored and rejected the suggestion of adding absorptive panels to the brick walls and ceilings, instead choosing to add sound masking. Cambridge Sound Management installed the Oasis Qt sound masking system in a way that preserved the aesthetics of the unique space, greatly improving the quality of the environment.

"Library patrons don't even know that a sound masking system is installed in our theatrical lights; it's neither seen nor 'heard'-just does its job," said Helena Warburg, Schow librarian.

ADVERTISEMENT

ADVERTISEMENT

MASTER OF SCIENCE
IN THREAT
AND RESPONSE
MANAGEMENT

University
of
Chicago

Graham School
of
General Studies

When Bank of America renovated space to create a new Boston-area national help line call center to house more than 200 associates on the phones all day, they faced many conflicting objectives. To create comfort, natural light from exterior windows would permeate the open plan area with only a few private, walled offices constructed in the interior of the building. But windows are hard, sound-reflecting surfaces. Also adding to the appeal of the space, Bank of America used interior ceiling domes, fashioned to look like skylights. These domes would echo sound and reflect it back into the space.

Finally, economics and promotion of worker collaboration motivated the use of existing 42-inch cubicle partitions. These three design elements created a workplace acoustical nightmare.

According to Ted Klemm, vice president of the help line, "Even with all that talking our work environment is private and productive. I wouldn't open a call center without sound masking."

The addition of sound masking improved the quality of Bank of America's call center without sacrificing visual appeal or compromising the cost goals of the space.

When configured appropriately, the same sound masking system can provide speech privacy for offices, reduce distractions and improve productivity in open plan areas. Ideally, sound masking is combined with sound absorption and sound blocking strategies. But when those strategies conflict with economics or aesthetics, sound masking gets the job done. FMJ

CAMBRIDGE
SOUND MANAGEMENT

Sound Masking
solutions for the workplace.

Direct-field sound masking with Qt Quiet Technology™ is A Generation Ahead.

- Low-voltage
- Uniform sound with no hot spots
- Easy architectural specification
- Straightforward installation
- Flexibility for all workspace types
- Paging and music features

Request a Quote
(800) 219-8199 www.csmqt.com

Reduce Distractions - Improve Productivity - Ensure Privacy

About the Author:

Jennifer J. Bergantino is a strategic marketing and business consultant to Cambridge Sound Management, in Cambridge, Mass. maker of the Oasis Qt sound masking system. Please send comments to jennifer@cambridgesoundmanagement.com.

ADVERTISEMENT

Turn information into results. Fast.

"The 5th floor never only took four hours."

"We cut occupancy costs by 10% last year."

"Customer satisfaction is at 97%."

FMInteract™ – Facility software that gets everyone talking

Analyze occupancy, plan moves and fulfill service requests all in the click of a mouse. Powerful and user friendly, you can configure FMInteract to manage your workplaces your way and share information with everyone in your organization.

See FMInteract in Action
Visit a live website to learn how driving workplace information can help you deliver real results.

Request today at:
www.fmcsystems.com/ifma.html

FM:Systems Directing people, place and process
(800) 849-0000 | www.FMcsystems.com

More than 100,000 users
managing their workplace
with FMInteract

1 East Greenway Plaza, Suite 1100 | Houston, Texas 77046 | Phone: 713-623-4362 | Fax: 713-623-6124 | fmj@ifma.org