



SOUND MASKING IN ACADEMIC ENVIRONMENTS

CASE STUDY — Williams College, Schow Science Library



Schow Library Services Center

Space: A college library with two 6,000 sq ft atria with 40 foot ceilings, skylights and exposed brick

Challenge: High, open ceilings with large windows and exposed brick.

Solution: Qt Quiet Technology™ sound masking system covering the open atrium and other spaces.

Result: An environment with minimal distractions while maintaining the unique aesthetics

Challenge

A contemporary library for a modern college

The Williams College Schow Science Library in Williamstown, MA is unlike any other library. It comprises two 6,000 square foot atria with extremely high 40 ft ceilings, skylights, and walls made of sound reflective brick, glass, and plaster. While the aesthetics of this wonderful library are unique, the acoustics are similar to many other libraries.

A unique solution for a unique space

In early 2006, the college partnered with an acoustical consulting firm to help find a solution. The firm performed diagnostic tests that showed that the spaces had both high reverberation times, similar to a concert hall or church and very low background sound. The low sound was the library's major problem – it led to unacceptable amounts of acoustical startle and distraction of users. Startle

“ Libraries are supposed to be quiet, but with whispers heard 40 feet away — I knew we had a unique acoustics problem. With the help of an acoustical consultant and Cambridge Sound Management's sound masking solution, we now have a library that seems quieter and is still beautiful. We are delighted. ”

Bob Jarvis
Buildings and Grounds

occurs when an unexpected sound suddenly permeates a space with low background noise. Intermittent activity sounds such as whispers, pencils dropping, and computer keyboarding stood out dramatically against the low background sound. Furthermore, distracting sounds carried throughout the atria because of the highly sound reflecting finishes.



Solution

A unique solution for a unique space

The consulting firm pointed out that heavily treating the walls with thick sound absorbing panels could provide some attenuation but would be very costly and would change the architectural environment substantially. In addition, they would provide very little relief for patrons close to the talker. The firm instead recommended a Qt Quiet Technology™ sound masking system from Cambridge Sound Management as a means to accomplish this.

This unique space required a unique installation. Cambridge Sound Management proposed an installation of the system with the Qt Emitters™ placed in special housings, painted black to match existing perimeter lighting, then mounted to the lighting instrument bars already in place, high up on the atrium walls, making the system undetectable to the patrons. And most importantly, the Qt Quiet Technology system enabled the selection of the appropriate sound spectrum and volume level to achieve the ideal sound masking environment.

Result

Unobtrusive is an understatement

The final results of this unique sound masking installation have more than accomplished the goals set out. The formerly routine complaints about the acoustics have ceased, affirming the positive role that Qt Quiet Technology can play in enhancing the acoustics of library spaces.

“ Our library was so acoustically lively, the students were shushing the librarians! Now, our space is as appealing functionally as it is visually. ”

David Pilachowski
College Librarian



Schow Library's theatrical lighting with Qt Emitters attached (left) Study tables near the library stacks (right)

“ Library patrons don't even know that sound masking is installed in our theatrical lights; it's neither seen nor heard—just does it's job. ”

Helen Warburg
Schow Science Library Librarian