



# SOUND MASKING IN HEALTHCARE ENVIRONMENTS

## CASE STUDY —Wentworth-Douglas Hospital

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Wentworth-Douglas Professional Center Dover, New Hampshire

The Wentworth-Douglas Professional Center has ten physician groups that specialize in family practice, internal medicine, and specialty medicine. Located on four floors, the group practices have suites with physician offices, exam rooms, registration business areas, and patient waiting rooms. In addition to the group practices, there is an on-site lab and an imaging suite. The Professional Center is affiliated with Wentworth-Douglas Hospital and features an open plan design with 78,000 square feet.

## Challenge

The Dover Family Practice, on the second floor of the Wentworth-Douglas Professional Center, required some assistance with solving acoustical challenges in the suite. The reception/registration area in the practice had patient check-in and check-out counters located at either end. Because of the open design of the suite, conversations taking place at the registration desk and noise from the nearby business area were creating unwanted distractions for patients in the waiting room. A radio on the registration counter was being played to cover distracting conversations and unwanted activity noise. When music was not playing, conversations could be overheard by staff and patients in the waiting room.

## Solution

Alison Brisson, Plant Operations Manager-Off Sites for Wentworth-Douglas Hospital is committed to delivering the highest level of patient satisfaction. When the Practice expressed concerns about distracting noise, Brisson

engaged an acoustics consultant to address the acoustical challenges of the space. The consultant surveyed the ten group practice suites and determined there were two issues. Conversations from the registration desk could be overheard in the waiting room, and noise from the business office was distracting and unpleasant.

To maintain the ambiance of the open concept in the suite, the consultant determined the most effective way to improve the acoustic environment was to deploy a sound masking system. He advised Brisson to test the Qt Quiet Technology sound masking system from Cambridge Sound Management (CSM), so they selected the patient waiting room of the Dover Family Practice for a pilot installation.

## Results

Over the course of several weeks, patients and nursing staff in the practice were surveyed on their ability to overhear conversations and noise from the office area and the general



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ambiance of the space. The feedback from patients and staff was overwhelmingly positive. The Qt 600 proved to be highly effective in providing the appropriate level of sound masking and the perception of noise reduction. With emitters installed in the waiting room, noise and voices from the business office were less audible.

As a result of the initial pilot, Brisson expanded the system into all ten physician group practices, as well as the lab and imaging suites. Emitters were placed in hallways outside of exam rooms and in waiting rooms throughout the four floors of the Professional Center.

“ We found the Qt 600 model with its 6 zones ideally suited for our open space design and the individual acoustical challenges in our ten private practices. In addition, the two audio inputs enable us to have full paging and music ability throughout the professional center. I was also impressed with the low impact of the installation process. With CSM’s Qt 600 in place, there is less distraction from unwanted sounds and conversations. Patients and staff can now experience the positive ambiance we wanted to achieve through the open design concept, and we gained a greater level of patient satisfaction.



**Alison Brisson**  
Plant Operations Manager



Dover Family Practice Qt 600 Sound Masking Installation