

# WHEN DOES ACOUSTICS BECOME CRITICAL IN DESIGN?



With every new project, you want to deliver a visionary design that reflects your firm's brand. But you can't do that in a vacuum. You also need to address:



## OWNERS' GOALS FOR THE BUILDING

Owners increasingly challenge you to compress schedules and "value engineer" wherever you can.



## OCCUPANTS' HEALTH AND WELL-BEING IN A GIVEN SPACE

Occupant expectations are growing—especially as they relate to noise.

For example, exposed structure and open-plan layouts have gotten popular with owners of office buildings for their aesthetics and flexibility. But, did you know that...



**69%** of employees are dissatisfied with noise levels at their primary workspace?<sup>1</sup>

**42%** percent are creating workarounds, such as wearing earbuds, to block out distractions and focus?<sup>2</sup>



## BALANCING PROJECT EFFICIENCY WITH BUILDING PERFORMANCE



To balance owner and occupant needs, you have to be ultra-efficient—which often means starting from baseline schedules, standards, and specifications that worked before:



- ✓ Indoor Environmental Quality
- ✓ MEP
- ✓ Code Requirements

The problem is, once these boxes are checked, many project specs prioritize aesthetic elements above all else. This means either:



Acoustics is addressed too late in the design process—after budgets have been fixed.



Or, acoustics that go beyond minimum standards get value engineered in later stages.

## THE IMPACTS OF NOISE ON HUMAN COMFORT

So, what happens when acoustical performance is overlooked or not driven by codes, standards, or guidelines?



**HEALTHCARE:** When noise disrupts patients' sleep in healthcare settings, it can have adverse impacts on **blood pressure, weight gain, heart disease, pain, stress levels, and inflammation.**<sup>3</sup>



**EDUCATION:** Students perform worse on standardized tests in locations with high "ambient" noise levels. To account for this, Chicago had to **retrofit 124 schools** for sound at a cost of **\$350 million.**<sup>4</sup>



**OFFICE:** High noise levels **decrease worker productivity** by up to **86 minutes per day**—which means almost 1 day of work lost by each employee **per week.**<sup>5</sup>

## MAKE ACOUSTICS AN IMPERATIVE EARLIER IN THE DESIGN PROCESS

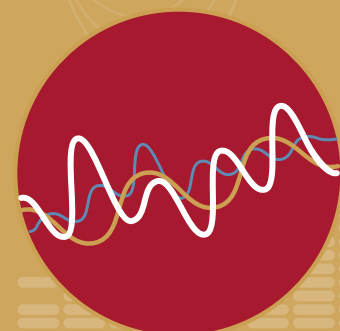
To avoid these issues, you need to think beyond minimum code requirements and focus on acoustics as a key design imperative tied directly to human comfort and well-being. How?



Incorporate acoustical performance considerations earlier in design.



Balance acoustics with aesthetics, budget, and code requirements throughout the design process.



Select acoustically absorbent materials that meet third-party tested and documented standards for use in a variety of environments.

When you partner with USG, you won't just ensure that your design **meets owners' and occupants' expectations** for sound in a given space. You'll also increase their **comfort and happiness within it**, while evolving your project plans to include proven acoustical solutions that **demonstrate your expertise** in this critical aspect of design.



1. "2018 U.S. Workplace Survey: Key Findings," Gensler, 2018.

2. Ibid.

3. "Evidence-Based Design Meets Evidence-Based Medicine: The Sound Sleep Study," The Center for Health Design.

4. Sparks SD, "Low-level classroom noise distracts, experts say," Education Week, January 6, 2015.

5. Callisi C, Stout J, "Stop noise from ruining your open office," Harvard Business Review, March 16, 2015.