

## Looking to add value to your Client's projects?

### Want to avoid costly acoustical mistakes that can lead to occupant complaints?

**RML Acoustics** specializes in noise and vibration control design for mechanical, electrical and plumbing systems in buildings of all type; noise control design for large outdoor equipment to meet stringent noise ordinance or facility requirements; and developing noise and vibration mitigation solutions for existing systems using advanced acoustical measurement equipment and techniques.

### Let RML Acoustics help you...

- acoustically "fine tune" your HVAC system designs for optimum acoustic performance and quiet sound levels in acoustically sensitive rooms
- meet stringent acoustical criteria required by Clients
- meet outdoor sound level restrictions imposed by municipalities
- avoid costly acoustical pitfalls that can lead to occupant complaints and Client dissatisfaction
- solve stubborn noise problems in existing buildings, such as low frequency rumble in ducts, high pitch whine from screw compressors, and many others

### Quieter sound levels in buildings can...

- improve speech communication between occupants
- improve worker productivity
- allow for more restful sleep and enjoyment of daily activities



Principal Consultant Rob Lilkendey has over 18 years experience as an acoustical consultant designing quiet mechanical systems and solving noise and vibration problems in hundreds of buildings. His qualifications include:

- Active member of ASHRAE, serving as a voting member of Technical Committee (TC) 2.6 *Sound and Vibration*, 8 of the last 11 years.
- Member of the Institute of Noise Control Engineers
- Published in ASHRAE Journal, given numerous presentations at AHSRAE local, regional, and national chapter meetings, including a four-hour CEU Course entitled "Noise and Vibration Control in Buildings" in Tampa, Florida
- Acoustical designer of mechanical systems for the renovation of Radio City Music Hall, The Cannon Performing Arts Center in Memphis, Tennessee, and many other high profile performing arts centers.
- Acoustical design of large energy plants serving Shands at UF Cancer Center, Sarasota Memorial Hospital, St. Joseph's Hospital North in Tampa, Florida and St. Anthony's Hospital in St. Petersburg, Florida.



# NOISE AND VIBRATION CONTROL BUILDING MECHANICAL SYSTEMS

## Sound Designs.

(i.e., get it right the first time)

RML Acoustics provides full MEP noise and vibration control services for a wide variety of project types.

### We can help you:

- Improve the acoustical performance of MEP system designs
- Meet demanding acoustical criteria requirements
- Avoid space planning and equipment selection mistakes that can lead to costly fixes

# Our Acoustical Design and Construction Services Include:

- Establishing acoustical criteria or interpreting existing criteria, noise ordinances, etc.
- Assisting with space planning
- Quiet HVAC duct design guidance
- Detailed acoustical analysis of HVAC systems
- Provide specifications and details for noise and vibration control products and systems
- Noise mitigation design for outdoor equipment
- Value Engineering of acoustical systems
- Full construction administration services

### Sample Project Types Include:

Central Energy Plants Multi-family residential, Mixed-use, Hotels (high-rise and low-rise) Schools, K-12 and Collegiate (specializing in LEED and Military project compliance) Hospitals and Medical Office Buildings (specializing in FGI compliance) Performing Arts Facilities Recording Studios Courthouses Commercial Office Buildings and many more...

## .....Noise Solutions

(if not, there is still hope)

We implement a three-part approach to solving noise and vibration problems in buildings and the environment.

### **Diagnostics Phase**

- Advanced acoustical measurement techniques using state-of-the art equipment
- Identify the source and magnitude of the offending noise and vibration.
- Provide a quantitative, scientific basis for recommendations

### **Solutions Phase**

- Project specific noise and vibration mitigation solutions.
- Specifications and details
- Multiple design options

### **Implementation Phase**

- Review acoustical product and performance submittals.
- Answer RFIs
- Construction site reviews
- Final compliance testing

### Sources of Noise and Vibration in Buildings:

Cooling Towers Air-Cooled and Water-Cooled Chillers Emergency Generators Air Handling Units/Heat Pumps Pumps and Piping Rooftop equipment (RTUs, OAU's, EFs, CUs, etc.) Condensing Units Plumbing Equipment Elevator Machine Rooms Transformers Duct rumble and diffuser noise and many more...