

## VACC Recent Key Projects: Residential / Commercial Noise Studies, Monitoring, and Mitigation

Interior noise issues can degrade the occupant's quality of life and negatively impact property values. Intrusive noise from neighboring units can disturb residents and lead to legal confrontations that could be avoided with proper design. We can design to prevent noise intrusion in residential spaces, test existing residential units to check how they comply with their design and municipal codes, and model mitigation measures to ameliorate noise complaints. Below we illustrate some of our recent interesting and challenging projects relating to residential and mixed-use properties. *Vibro-Acoustic Consultants specializes in vibration and noise design in demanding settings. Contact us via [www.va-consult.com](http://www.va-consult.com).*



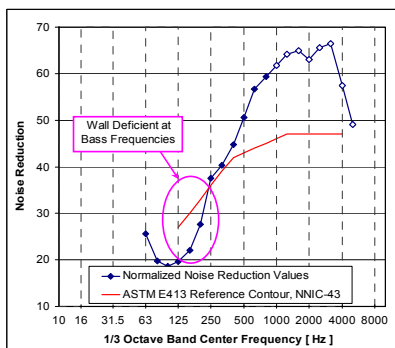
**Multi-Building Resort Noise Testing**, Multinational Resort Company (near Palm Springs, CA; 2008): Conducted Sound Transmission (STC) & Impact Insulation (IIC) Testing of common party walls and floor-ceiling assemblies in several buildings of the resort complex. Data was used to estimate field performance of the walls and ceilings and compared to their design performances.

**Luxury Condo Noise Testing**, West Hollywood, CA; 2007: Conducted Sound Transmission (STC) & Impact Insulation (IIC) testing of floor-ceiling assembly in new luxury condominium building. Data was used to estimate field performance of the ceilings and field tests compared to their design performances.



**Commercial Office Noise Reverberation Study**, Factor TG (San Francisco, CA; 2008): Noise reverberation study conducted in large conference room to measure and control excessive noise reverberation. Based on measurements and acoustic modeling, we recommended sound absorption specifications for ceiling tiles that would significantly reduce prominent echoes and increase speech intelligibility.

**Mixed-Use Condo Noise Design Study**, Newport Realty (San Francisco, CA; 2008): Designed common party walls and floor-ceiling assemblies for new luxury commercial and residential units. We designed partitions to meet luxury STC & IIC standards above California Building Code standards. We also specified STC ratings for exterior windows.



**Mixed-Use Condo Building Vibration Monitoring**, Clocktower Lofts (San Francisco, CA; 2005): Weeklong monitoring of floor vibration due to traffic on a newly-retrofitted approach to the San Francisco Bay Bridge.

**Single Family Homes Exterior Noise Impact**, Private Developer (Lafayette, CA; 2005): Performed exterior noise survey to determine noise impact on potential site of single-family homes. Compared measured CNEL to local standards that were based on CA Title 24 noise standards.

**Single Family Home Aircraft Flyover Noise Impact**, Private Residence (Los Altos, CA; 2005): Performed long-term indoor/outdoor noise monitoring to support litigation regarding real-estate transaction disclosure of airplane noise for a single-family home.