


ACOUSTICS

FOR THE BUILT ENVIRONMENT



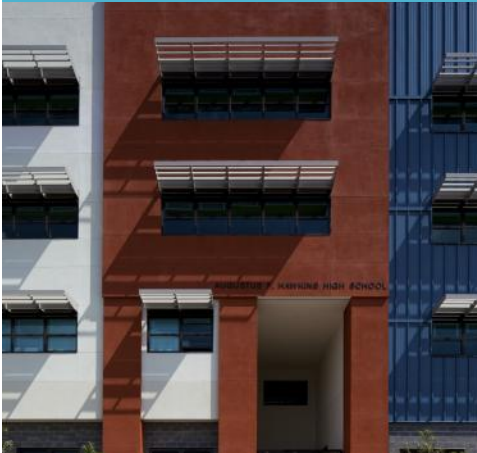


“Sound is an element too often forgotten when designers and owners visualize a building, but acoustics are just as important as what we can see and feel.”

– Randy Waldeck, PE, LEED® AP, Principal Acoustician



ARCHITECTURAL ACOUSTICS



ENVIRONMENTAL/
TRANSPORTATION NOISE



SOUND INSULATION



“CSDA has demonstrated to be quite a team player with great communication skills, professionalism, and responsiveness in assisting me in my role with implementing the noise monitoring requirements for the Universal Studios Specific Plan.”

– Robert Glaser, Principal Planner, County of Los Angeles, CA

ARCHITECTURAL ACOUSTICS



Academic
Civic and Public Institutional
Commercial
Data Centers
Healthcare
Industrial
Master Planned Communities
Mixed-Use
Performing Arts
Theater
Entertainment and Leisure
Places of Worship
Restaurants
Retail
Single- and Multi-Family Residential
Hospitality
Senior Housing
Sports Facilities
Student Housing

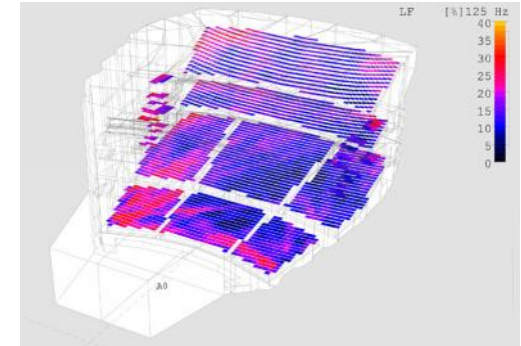


ARCHITECTURAL ACOUSTICS

CSDA carefully considers a building's location, function and aesthetics in designing acoustical solutions that are within an owner's budget. We have collaborated on new construction, expansions, restorations, and renovations for a wide range of building types, including high-performance and sustainable structures.

We provide developers, planners, schools, architects, engineers, and owners with:

- Recommendations for room shaping, acoustical finishes, and sound isolation
- Design review and acoustical input on building plans and specifications
- Coordination, calculations, and documentation for LEED acoustics credits
- Construction site visits and measurements
- Three-dimensional modeling and graphics for agency/user presentations



Interior computer model of a 2,100 seat multiuse concert hall, used to develop recommendations for acoustical treatment and room shaping.

ENVIRONMENTAL/
TRANSPORTATION NOISE



Aircraft
Construction
Central Plants
Equipment Yards
Helicopter
Industrial Facilities
Rail
Vehicle





ENVIRONMENTAL/TRANSPORTATION NOISE

By necessity, transportation systems are placed near population centers. The resulting noise and vibration may adversely impact the quality of life for nearby residents and the surrounding communities. Government agencies are well aware of these environmental impacts and have set regulatory compliance standards to ensure community wellbeing.

CSDA works with planners, engineers, and project managers to meet regulatory requirements for noise by providing:

- Environmental noise and vibration studies
- Noise barrier and building envelope design
- General plan noise element updates
- Noise and vibration measurements/monitoring



Three-dimensional noise model provides an accurate visual “heat map” of project noise levels

SOUND INSULATION



Apartments
Churches
Civic Institutions
Community Centers
Condominiums
Educational Facilities
Hospitality
Nursing Homes
Retirement Homes
Single-Family Homes



SOUND INSULATION

In an effort to address noise concerns, the federal government has funded programs to retrofit impacted properties with architectural solutions aimed at achieving acceptable interior noise levels. These retrofits reduce speech interruption and sleep disturbance in homes and improve learning environments in schools. We respectfully work with each community to provide acoustical solutions that offer healthier, more comfortable environments.

We have earned a reputation for excellence in the following:

- Acoustical design and measurements
- Agency audits
- Architectural design
- Construction and contract document development
- Construction administration and inspection support
- Community outreach/collateral materials
- Data management systems
- Program management
- Technical and administrative staff support

NOTABLE PROJECTS



EDUCATION

Thurgood Marshall Elementary, New Classroom Building
Occidental College, New Athletic Facility
Madison Park Business and Art Academy

PERFORMING ARTS/CULTURAL

The Vermont Theater, Hollywood
Audrey Irmas Pavilion, Wilshire Boulevard Temple
Grossmont College New Performing Arts Complex

HEALTHCARE

Ravenswood Family Health Center
UCLA Medical Center Kidney Transplant Suite
Stanford University Hospital Helipad

HOSPITALITY

The Pad Hotel, Atlanta
Hilton Cleveland Downtown Convention Center Hotel

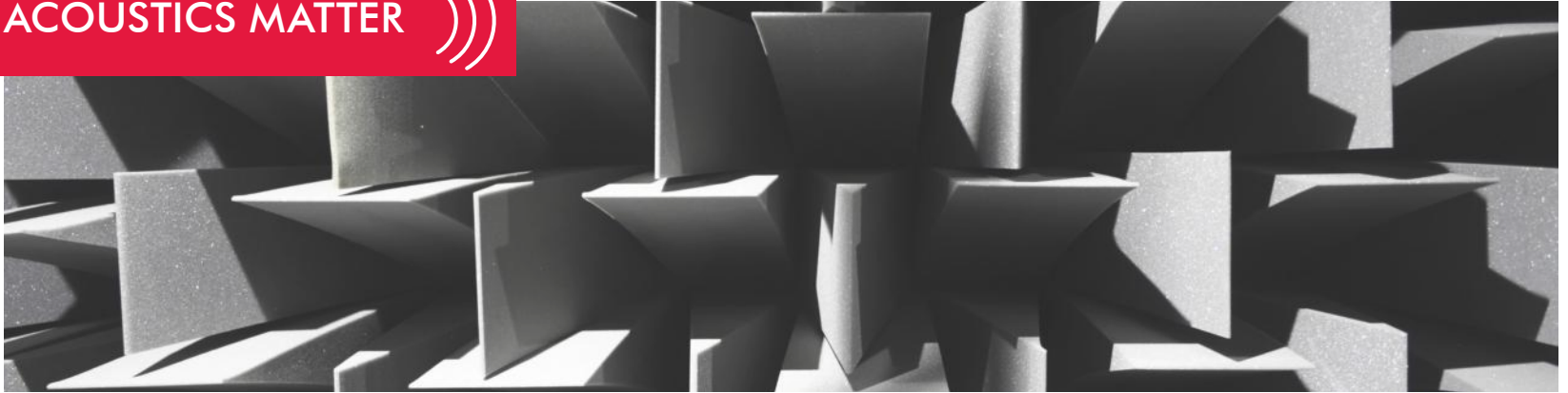
MULTI-FAMILY HOUSING

Anton Evolve Mixed-Use Residential Development
333 12th Street Affordable Housing
1717 N. Bronson Avenue Apartments

TRANSPORTATION

Metro Purple Line/Westside Subway Extension
BART Silicon Valley Berryessa Extension Residential
Noise Insulation Program
Los Angeles World Airports (LAWA) Residential
Soundproofing Program

ACOUSTICS MATTER



Randy Waldeck, principal and founder of CSDA's acoustics practice, has traveled all over the U.S. to measure, model, analyze, and develop acoustical solutions to mitigate and control environmental, mechanical and occupant noise. A third generation engineer, Randy has been working with clients to provide sound solutions for the built environment for more than a decade.



ABOUT CSDA DESIGN GROUP

CSDA Design Group (CSDA) is an architectural and engineering firm with 35 professionals practicing in San Francisco, Los Angeles, San Diego, and Phoenix. Founded in 1952, we specialize in acoustics and educational facility planning and design. We collaborate with clients to develop cost-effective acoustical solutions that provide healthy environments and meet regulatory requirements and community expectations.

HOW TO REACH US



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