

Joseph F. Bridger

Education: BSME - May 1993, MSME December 2001
Department of Mechanical and Aerospace Engineering
North Carolina State University at Raleigh
Graduate specialization in acoustics and noise control

Technical Activities: Individual Member - National Council of Acoustical Consultants
Member - ASHRAE
Member - Acoustical Society of America
Member - North Carolina Chapter
Chair 02-04, Treasurer 96-98 & 04-12, Secretary-Treasurer 98-02
Member - Technical Committee on Architectural Acoustics 04-13
Member - Institute of Noise Control Engineering
LEED Accredited Professional

Experience:

- Lead consultant and project manager for most architectural acoustics and building noise control problems, including room acoustics, isolation, and HVAC noise.
- Architectural project experience includes rehearsal facilities, dining spaces, fellowship halls, libraries, offices, auditoriums, churches, gyms, classrooms and lecture halls, conference rooms, lobbies and atriums, natatoriums, studios, piano rooms, theaters, and condos.
- Environmental noise project experience includes quarries, power generation facilities, outdoor gun range, airport monitoring, outdoor amphitheater, road noise, dog kennels, shipping terminal, barrier analysis, heating/cooling plant, community noise, and outdoor HVAC and refrigeration equipment noise.
- Occupational-Industrial Noise – major noise survey for pharmaceutical company. Analysis of potential noise reduction from treatment for several industrial plants. Measurement of product noise, chiller plant noise investigation.
- Developed a wealth of programs, macros, and spreadsheets to aid in analysis and data processing. These include Geometrical and Reverberation Acoustical Analysis Tools, detailed HVAC analysis module, Transmission Loss, Advanced Outdoor-Indoor Level Reduction calculations, various ratings (NC, RC, STC, NIC and AI), Outdoor Multi-source, Multi-Receiver Propagation and Barrier analysis module, advanced multi-source, multi-receiver parallel planes room program, mode calculations for small rooms, Advanced Silencer selection database, Manufacturer-Rep Database, Business Tools
- Performed significant research in cafeteria acoustics, including a study of 19 area schools, demonstrating the relationship between room acoustics and noise levels as a research project in graduate school. This was followed up by significant independent research and presentations at the NC chapter of ASA, and a presentation at the ASA.
- Lead EASE-AURA analyst.
- Semi-Professional musician (piano-keyboard, trumpet, vocalist)
- LEED for Schools, green building acoustics, and classroom acoustics specialist