THE NATURE OF CREATIVE ENGINEERING

**the art and science of aural and visual communication**

LEE SOUND DESIGN is a full service consulting engineering firm specializing in technologies of the art and science of aural and visual communication. We apply our creative expertise to professional, commercial and residential environments where critical listening, entertainment viewing and multimedia communication occurs. We provide complete design and project management services to bring professional world class solutions to your organization.

FROM CONCEPT:

TO REALITY:
FROM CONCEPT:

TO REALITY:

OTHER EXAMPLES:
We were founded in 1993 to provide professional consulting engineering and construction management services to the industry. Our mission:

- Provide quality consulting services for a fair price
- Maintain a level of professionalism that elevates the respect and recognition of acoustical and specialty consultants in the professional engineering community
- Educate architects, engineers and the public in these technologies. Hearing and seeing are the oldest forms of communication, while at the same time aural and visual technologies remain one of the least understood technologies in today's world.

Lee Sound Design Services include:

**Systems Design**

- Large and Small Venue Sound Systems
- Multimedia Presentation Facilities
- Videoconference and Distance Learning Systems
- Acoustics for Speech Reinforcement - Music Quality - Noise Control

**Facilities Design and Planning**

- Audio-Visual Spaces - Ergonomics - Lighting - Acoustics
- Architectural Acoustics and Noise Control Consulting
- Technology Planning - Programming - Budgeting - Feasibility

**Custom Technology Services**

- Certified Control System Programming and Design
- Control System Web Page Design and Graphic Interface Design

**Our Facility and System Design Experience includes:**

- Performing Arts Facilities
- Convention Centers and Hotels
- Worship Spaces
- Arena, Stadia, and Sports Facilities
- Government and Educational Rooms
- Corporate Conference Rooms
- Computer Presentation Rooms
- Training Rooms
- Video Production Studios
- Audio Recording Studios
- Band & Choral Rehearsal Rooms
- Museums and Exhibit Spaces
- Courtrooms and Law Schools
- Auditoria, Theaters and Concert Halls
Why Choose Lee Sound Design?

- Registered Professional Engineering in Georgia, South Carolina and Florida
- Certified Technology Specialists
- Member of the National Council of Acoustical Consultants
- Sponsor of the National Systems Contractors Association
- Member of the International Communications Industries Association
- Proven Performance on multi-million dollar projects
- Laboratory and Field Measurements according to ASTM Standards
- Time Delay Spectrometry (TEF Method), FFT Analysis and MLS Analysis
- Pre-construction Performance Predictions and Computer Modeling
- Contract Administration and Construction Observation
- Seminars, Presentations and Training Workshops
- Professional Liability Insurance for Errors and Omissions
D. Wayne Lee, P.E. offers over 25 years of proven experience in various aspects of the industry. A graduate of the Georgia Institute of Technology, he studied under Dr. W. Marshall Leach, Jr., School of Electrical Engineering and performed extensive studies under Dr. Eugene T. Patronis, Jr., School of Physics. Georgia Tech studies included audio engineering, acoustical engineering, electronic instrumentation, loudspeaker design, fiber optics and noise reduction techniques.

Industry experience started in 1981 with Western Electric, Co. where Mr. Lee was a Field Engineer supporting submarine sonar systems and designing test sets for the Navy's ballistic submarine fleet. Responsibilities included field support of the existing analog system and prototype testing of the all digital system under development at Bell Laboratories. Then a move to Altec Lansing, Corp. as a Senior Development Engineer brought the establishment of the Electronics R. & D. Department in Oklahoma City. As the group leader Mr. Lee was involved in new product development and existing product support. Projects included development of power amplifiers, automatic microphone mixers, equalizers, and signal processors.

Starting in 1986, Mr. Lee spent nearly eight years as the Engineering Manager for Baker Audio/Telecom, an established design/build contracting firm in Atlanta that specializes in acoustics, sound systems and audio visual systems. There he pioneered computer assisted sound system design and acoustical measurements utilizing the Techron TEF Analyzer. System performance was predicted prior to installation and field verified with site measurements after installation. This background in design/build contracting offers practical experience many consultants may not be able to provide. In 1993, Mr. Lee founded Lee Sound Design, Inc.

EDUCATION

Bachelor of Electrical Engineering - Georgia Institute of Technology - 1981
Broward Community College - Architecture Studies - 1976-1978
SYN-AUD-CON Electro-acoustic Seminar Graduate - 1987
SYN-AUD-CON Loudspeaker Designer's Workshop Staff Assistant - 1988
SYN-AUD-CON Sponsored Intelligibility II Workshop, Indiana University - 1990
Professional Liability Education Program for Architects and Engineers - 1997, 1999
TEF Level II - Advanced Worship Space Acoustics & Sound Analysis Workshop - 2000
TEF Level III - Advanced Workshop on Speech Intelligibility - 2001
SYN-AUD-CON Sound System Design & Optimization Seminar - 2002
SYN-AUD-CON Acoustic Test and Measurement Workshop - 2002
SYN-AUD-CON Loudspeaker Array Workshop - 2002
SYN-AUD-CON Architectural Acoustics Workshop - 2003
SYN-AUD-CON Hums, Buzzes and Radio Frequency Interference Workshop - 2005

PROFESSIONAL SOCIETIES

Member - Audio Engineering Society (AES), Chairman - Atlanta Chapter - 1994, 1995
Member - Acoustical Society of America (ASA)
Michael E. Cooper, CTS joined Lee Sound Design, Inc. in 1997 as a Principal Consultant. Mr. Cooper brings over 30 years of experience in design and project management for several aspects of our industry including, video systems, audio visual facilities, computer control systems and sound reinforcement systems. Additionally, he worked in video production and engineering for several Universities and hospitals.

Mr. Cooper started his career in video and audio technology as the Chief Television Engineer for Baptist Memorial Hospital in Memphis, Tennessee. Then, during the late nineteen eighties, Mr. Cooper was Director of Technology Planning for Georgetown University. During that period he designed the television studio, production and editing suites on-campus. As well he was responsible for technical direction, editing and production work.

Most recently Mr. Cooper was Engineering Manager for Baker Audio/Telecom. Prior to that he worked with Mr. Lee as a Senior Systems Design Engineer. Responsibilities included consulting, design, project management and installation management for all forms of audio and visual related projects. One specific area of expertise is computer control system design and programming.

EDUCATION

Vietnam Era Veteran in the United States Navy
Associate of Science Electronics Technology - Memphis State University - 1966
United States Navy Advanced Electronics School - MIT Curriculum - 1968
IBM Local Area Network (LAN) Design and Maintenance - 1987
SYN-AUD-CON Electro-acoustic Seminar Graduate - 1991
ICIA Sponsored Audio/Visual Technical Courses - 1989-99
Sony Corporation Display and Projection Products Technical Training - 1990-99
BARCO, Inc. Large Display and Projection Products Technical Training - 1990
Extron Electronics, Inc. - Consultants Workshop - Improving Tour Image - 1999
Atlanta Signal Processing, Inc. (ASPI Digital) - Conference Room Design - 1999
Communication Technology Specialist (CTS) Designation - 1999
Professional Liability Education Program for Architects and Engineers - 2000
Crestron Level III Programming Certification Class - 2002

PROFESSIONAL SOCIETIES

Member - Society of Motion Picture and Television Engineers (SMPTE)
Member - ICIA’s Independent Consultants in Audiovisual Technologies (ICAT)
CURRENT PROJECTS - 2007

First Church of the Nazarene, Nashville, TN - Acoustical design, sound system design and video system design for an existing 1400 seat Sanctuary. Contemporary music production capabilities required. Audio and Video recording and streaming for Internet broadcast. Contract administration, construction observation and commissioning will be provided.  
Client: First Church of the Nazarene, Nashville, TN

Episcopal Church of the Holy Family, Jasper, GA - Acoustical evaluation of existing characteristics and sound system performance in the Sanctuary. Interior design is a unique blend of Native American Indian and Anglican architecture. The study entailed recommendations for improving the speech intelligibility and system performance. Sound system renovations recommended and planned. Contract administration, construction observation and commissioning will be provided.  
Client: Episcopal Church of the Holy Family, Jasper, GA

Saint Lawrence Catholic Church, Lawrenceville, GA - Acoustical design and sound system design for a new 1000 seat Sanctuary, Parish Hall and Music Room. Traditional Mass services as well as international services. Extensive computer modeling required for acoustics and sound system performance predictions.  
Client: Catholic Construction Services, Inc., Atlanta, GA

Zion Hill Baptist Church, Atlanta, GA - Acoustical design, sound system design and video system design for a new 2200 seat Sanctuary. Full Gospel production capabilities required. Audio and Video recording for Internet broadcast. Fellowship Hall, Gym and Educational Facilities with AV capability included. Contract administration, construction observation and commissioning will be provided.  
Client: Stanley Love-Stanley Architects, Atlanta, GA

First United Methodist Church, Lawrenceville, GA - Sound system design and video system design for a 1100 seat Sanctuary renovation. Traditional music and a strong amplified contemporary music program required a full production sound and video system design. Video projection, PTZ cameras and audio recording with complete AV remote control capabilities. Contract administration, construction observation and commissioning was provided.  
Client: First United Methodist Church, Lawrenceville, GA

Atlanta Chinese Christian Church, Atlanta, GA - Acoustical evaluation of existing characteristics in the Sanctuary. The study entailed recommendations for improving the acoustics for speech intelligibility. Acoustical treatment with absorber panels were implemented to reduce reverberation times and strong late reflections.  
Client: Atlanta Chinese Christian Church, Atlanta, GA

Church of God of East New York, Brooklyn, NY - Acoustical design and sound system design for a new 500 seat Sanctuary and a multi-purpose room. Contemporary music program includes a full amplified band and video production.  
Client: Church of God of East New York, Brooklyn, NY

Immaculate Heart of Mary Catholic Church, Atlanta, GA - Acoustical Design for a 850 seat Nave. Musical components include a pipe organ, choir and a Life Team band. Extensive computer modeling and acoustical analysis was included.  
Client: CDH Partners, Inc., Marietta, GA
Saint Peter Chanel Catholic Church, Roswell, GA - Acoustical Design for a 1200 seat Nave, a 100 seat Day Chapel, and a Music Rehearsal Room. Musical components include a pipe organ, choir, orchestra and a Life Team band. Extensive computer modeling and acoustical analysis was included.
Client: CDH Partners, Inc., Marietta, GA

Hiland Park Baptist Church, Pensacola, FL - Acoustical design, sound system design and video system design for a new 1500 seat Sanctuary. A mix of traditional and light contemporary music will require a balance in acoustics and sound system design.
Contract administration, construction observation and commissioning will be provided.
Client: Bauer Askew Architecture, Nashville, TN

AL-FAROOQ MASJID Islamic Mosque, Atlanta, GA - Acoustical design, sound system design and audio visual system design for a new Islamic Mosque. Rooms include; Worship Hall, Library/DAWA Center, Divisible Meeting Rooms, Conference Rooms and video overflow areas. Outdoor sound systems are planned for the Call To Prayers and the athletic courts.
Client: AL-FAROOQ MASJID Islamic Mosque, Atlanta, GA

First Presbyterian Church, Dalton, GA - Acoustical design, sound system design and audio visual system design for a new Gym Multi-Purpose Room. Contract administration, construction observation and performance testing will be provided.
Client: CDH Partners, Inc., Marietta, GA

First Presbyterian Church, Atlanta, GA - Acoustical and sound system analysis for the highly reverberant Sanctuary. New sound system design and installation management. The loudspeaker system design uses advanced controllable loudspeaker array technology. Complete sound system installation testing once the project is finished.
Client: First Presbyterian Church, Atlanta, GA

Christ the King Catholic Church, Pineville, GA - Acoustical and sound system design for a new 800 seat church. The loudspeaker system design uses advanced passive loudspeaker array technology. Contract administration, construction observation and performance testing will be provided.
Client: CDH Partners, Inc., Marietta, GA

Tuskegee University - College of Business and Information Technology, Tuskegee, AL - Acoustical consulting and audio-visual system design for a 100 seat Auditorium, multiple classrooms and multiple laboratories. Relocation and re-integration of existing media center distance learning system. Contract administration, construction observation and performance testing will be provided.
Client: Hogan Campis Architecture, Atlanta, GA

Pensacola High School, Pensacola, FL - Architectural Acoustics analysis and consulting for music and speech. Provide Acoustical Design and Recommendations to address parameters such as speech intelligibility, sound reflections and ambient noise. Provide recommendations for interior surface treatments in the rooms. Contract administration, construction observation and performance testing will be provided.
Client: Bay Design Associates, Pensacola, FL
CLIENTS AND PROJECTS

WORSHIP SPACE PROJECTS

First Church of the Nazarene, Nashville, TN
Episcopal Church of the Holy Family, Jasper, GA
Saint Lawrence Catholic Church, Lawrenceville, GA
Zion Hill Baptist Church, Atlanta, GA
First United Methodist Church, Lawrenceville, GA
Atlanta Chinese Christian Church, Atlanta, GA
Church of God of East New York, Brooklyn, NY
Immaculate Heart of Mary Catholic Church, Atlanta, GA
Saint Peter Chanel Catholic Church, Roswell, GA
Christ the King Catholic Church, Pine Mountain, GA
Main Street United Methodist Church, Columbia, SC
Hiland Park Baptist Church, Pensacola, FL
AL-FAROOQ MASJID Islamic Mosque, Atlanta, GA
First Presbyterian Church, Dalton, GA
First Presbyterian Church, Atlanta, GA
University of the South All Saints Chapel, Sewanee, TN
First United Methodist Church, Montgomery, AL
Low Country Community Church, Bluffton, SC
Prince of Peace Catholic Church, Taylors, SC
New York Full Gospel Korean Church, Flushing NY
All Saints Catholic Church, Atlanta, GA
Village Baptist Church, Destin, FL
Christian Life Assembly, Cumberland, PA
Maple Hill Church of God, Lebanon, TN
First Baptist Church, Atlanta, GA
Cathedral of the Incarnation Catholic Church, Nashville, TN
University Park Baptist Church, Charlotte, NC
Holy Spirit Catholic Church, Dunwoody, GA
St. Brigid Catholic Mission Church, Alpharetta, GA
Oakhurst Baptist Church, Decatur, GA
St. Peter Chanel Catholic Mission, Roswell, GA
First United Methodist Church of Anniston, Anniston, AL
Free Chapel Worship Center, Gainesville, GA
Vineville Baptist Church - North, Macon, GA
Victory Christian Center, Charlotte, NC
Forest Hill Church, Charlotte NC
Warner Robins First Methodist Church, Warner Robins, GA
Auburn United Methodist Church, Auburn, AL
St. Philip's Episcopal Church, Charleston, SC
St. Mary's-On-The-Highlands Episcopal Church, Birmingham, AL
First Baptist Church, Fitzgerald, GA
Roswell United Methodist Church, Roswell, GA
Unitarian Universalist Fellowship of Athens, GA
First United Methodist Church, Carrollton, GA
EDUCATIONAL FACILITIES
Universities and Colleges

Tuskegee University - College of Business and Information Technology, Tuskegee, AL
University of the South All Saints Chapel, Sewanee, TN
University of the South McClurg Dining Hall, Sewanee, TN
Trident Technical College, Charleston, SC
Vanderbilt University, Nashville, TN
Macon State College, Macon, GA
Athens Technical College, Athens, GA
Georgia State University, Atlanta, GA
Kennesaw State University, Kennesaw, GA
Georgia Southern University School of Information Technology, Statesboro, GA
Vanderbilt University Law School, Nashville, TN
Medical University of South Carolina, Charleston, SC
South Carolina State University, Orangeburg, SC
The McKimmon Center, NC State University, Raleigh, NC
University of South Carolina at Aiken, Aiken, SC
United Arab Emirates Faculty of Medicine, Al Ain, UAE
Midlands Technical College Harbison Campus, Columbia, SC

Middle Schools, High Schools and Specialty Schools

Pensacola High School, Pensacola, FL
Fellowship Christian School, Roswell, GA
Rawlinson Road Middle School, Rock Hill, SC
Gibbes Middle School, Columbia, SC
Carver High School, Atlanta, GA
Sumter High School, Sumter, SC
Bluffton High School, Bluffton, SC
New Wando High School, Charleston, SC
Boiling Springs Junior High School, Boiling Springs, SC
The Renaissance Center, Dickson, TN
West Ashley High School, Charleston, SC
Dutch Fork High School, Irmo, SC
Southeast Middle School, Richland County, SC
Rock Hill Middle School, Rock Hill, SC
Chester Middle School, Chester, SC
Clayton County Schools Performing Arts Center, Jonesboro, GA
Walhalla High School Auditorium, Oconee Co, SC
Seneca High School Auditoriums, Oconee Co, SC
Horry County Schools, Horry Co., SC
CORPORATE HEADQUARTERS AND TRAINING FACILITIES

Gilmore Foundation Conference Center, Armory, MS
McKesson Corporate Headquarters, Alpharetta, GA
Media Solutions, Atlanta, GA
Fernbank Museum of Natural History
Wild Dunes Resort Village, Isle of Palms, SC
Lexmark International, Lexmark, KY
In Touch Ministries World Training Center, Atlanta, GA
HBO & Company Headquarters, Alpharetta, GA
American Red Cross, Atlanta, GA
CompDent Corporation, Atlanta, GA
Charleston Technical Center/WestVaco Facility, Charleston, SC
Woodruff Arts Center Circle Room, Atlanta, GA
Spartanburg Regional Medical Center, Spartanburg, SC
Arthritis Foundation National Office, Atlanta, GA

GOVERNMENT FACILITIES

Troup County Government Center, LaGrange, GA
Jefferson County Shades Valley Complex Training Room, Birmingham, AL
Cobb County Superior Courts Courtroom of the Future, Marietta, GA
Statesville Civic Center, Statesville, NC
Institute of Nuclear Operations, Inc, Atlanta, GA
Pt. Gillem Army Distribution Center, Atlanta, GA
Dorchester Co. Human Services and Law Enforcement Complex, Charleston, SC
Nuclear Assurance Corporation, Norcross, GA
South Carolina Employment Security Commission, Columbia, SC

THEATER AND AUDITORIUM PROJECTS

Fernbank Museum of Natural History, Atlanta, GA
Pensacola High School, Pensacola, FL
Jepson Center for the Arts - Telfair Museum of Art, Savannah, GA
Gibbes Middle School, Gibbes, SC
Sumter High School, Sumter, SC
Bluffton High School, Bluffton, SC
New Wando High School, Charleston, SC
Boiling Springs Junior High School, Boiling Springs, SC
The Renaissance Center, Dickson, TN
West Ashley High School, Charleston, SC
Southeast Middle School, Richland County, SC
Rock Hill Middle School, Rock Hill, SC
Chester Middle School, Chester, SC
Clayton County Schools Performing Arts Center, Jonesboro, GA
Walhalla High School Auditorium, Oconee Co, SC
Seneca High School Auditoriums, Oconee Co, SC
Horry County Schools, Horry Co., SC
University of South Carolina at Aiken, Aiken, SC
United Arab Emirates Faculty of Medicine, Al Ain, UAE
Gatlin Brothers Theater, Myrtle Beach, SC
South Carolina Employment Security Commission, Columbia, SC
Midlands Technical College Harbison and Airport Campus, Columbia, SC

RECORDING STUDIO AND PRODUCTION FACILITIES

The New Schools at Carver, Atlanta, GA
Vericom Corporation, Roswell, GA
Manchester Recording Studios, Manchester, TN
In Touch Ministries World Training Center, Atlanta, GA
University Park Baptist Church, Charlotte, NC
Hawk's Ridge Recording Complex, Atlanta, GA
Georgia State University Digital Arts & Entertainment Lab Video Routing and Production Facility, Atlanta, GA
The Renaissance Center, Dickson, TN
Georgia State University Instructional Tech Center Production Studio, Atlanta, GA
Crash Bang Wallop Studio, Stone Mountain, GA

ACOUSTICAL AND NOISE CONTROL PROJECTS

Fellowship Christian School, Roswell, GA
Riverside Park Amphitheater, Roswell Recreation and Parks Department, Roswell, GA
Alpharetta BellSouth Central Office Expansion, Alpharetta, GA
Chastain Park Amphitheater, Atlanta, GA
Wood Hollow Apartment Complex, Atlanta, GA
Laurens Place Condominium/Maritime Center, Charleston, SC
Blast Cleaning Products of Atlanta, Cumming, GA
Nuclear Assurance Corporation, Norcross, GA

SPORTS ARENA AND STADIUM PROJECTS

Fellowship Christian School, Roswell, GA
Georgia Dome Phased Renovation, Atlanta, GA
American Airlines Arena, Miami, FL
New Atlanta Philips Arena, Atlanta, GA
Broward County Civic Arena, Sunrise, FL
Centennial Olympic Stadium, Atlanta, GA
Olympic Tennis Center, Stone Mountain, GA
Morris Brown College Stadium, Atlanta, GA
Clark Atlanta University Stadium, Atlanta, GA
Morehouse College Gymnasium, Atlanta, GA
Gator Bowl Stadium, Jacksonville, FL
Gettysburg College, Gettysburg, PA