

AL FAROOQ MASJID OF ATLANTA

ATLANTA, GEORGIA

ACOUSTICAL CONSULTANT:	Lee Sound Design, Inc.
ARCHITECT:	Design Arts Studio
DESIGN BUILD FIRM:	Engineering Design Technologies, Inc.
OWNER:	Al Farooq Masjid of Atlanta
SOUND AND AV CONSULTANT:	Lee Sound Design, Inc.
CONSTRUCTION COST:	10 Million USD
COMPLETION DATE:	2007

Al Farooq Masjid of Atlanta is the largest mosque in the Southeast and was designed with traditional Muslim and interfaith concerns in mind. All mosques must face Mecca, the Saudi Arabian city where Muhammad, the founder of Islam, was born in A.D. 570. Making this work within the limitations of a modern city required orienting the mosque's prayer hall towards the northeast while the rest of the building sits squarely on the mid-town Atlanta block.

The facility features a 36 foot high dome over the main prayer hall, a 19 foot dome over the library/dawa center and a 131 feet high minaret. The main level consists of the main prayer hall, library/dawa center, men's ablution area and a gathering place. The upper level has a women's prayer hall, women's study & lounge, women's ablution area, and a glassed in mezzanine area where non-Muslims can view prayers below. The basement has several large, divisible meeting rooms and a kitchen.

Acoustical, sound and audiovisual system design was performed for the entire facility. Concerns and challenges were sound focusing by the dome and the octagon floor plan. Being a speech only worship service, the approach was to add absorption everywhere possible. The interior of the dome was designed with a

smooth, field applied, seamless absorbing finish system. The finish is an emulsion of mineral particles, which form a micro-porous membrane applied to pre-coated mineral wool supporting panels. After drying, the seams are sanded and multiple higher density (smaller mineral particles) base coatings are trowel applied and smoothed, providing the appearance of a seamless conventional gypsum or plastered surface. Traditional 2" thick, fabric wrapped, semi-rigid fiberglass panels were applied to all available wall surfaces to reduce the reverberation times and sound system reflections. Initially steerable line array loudspeakers were proposed to reduce the amount of sound impinging on the domed ceiling. Marble columns and ornate fixtures were too prevalent to allow this, so traditional mid-high frequency modules were recessed above the Minbar, where the iman speaks from. Facility wide audio/video overflow and monitoring capability exists on all levels. The meeting rooms have complete AV presentation systems as well. Unobtrusive exterior loudspeakers will be provided for the call to prayers.

Al Farooq Masjid is named after an early Islamic leader and companion of Muhammad. There are over 2 million American Muslims associated with over 1200 Mosques in the United States.

CRITICAL DATA

Total Facility Size:	46,000 square feet
Worship Center Volume:	225,000 cubic feet
Worship Capacity:	1500 people
Calculated Mid-Band Reverberation Time:	Less than 1.5 seconds
Calculated Mid-Band Speech Intelligibility - Unoccupied	Less than 8% ALCons Less than 0.56 STI
Recommended Noise Level:	NC-20 to NC-30

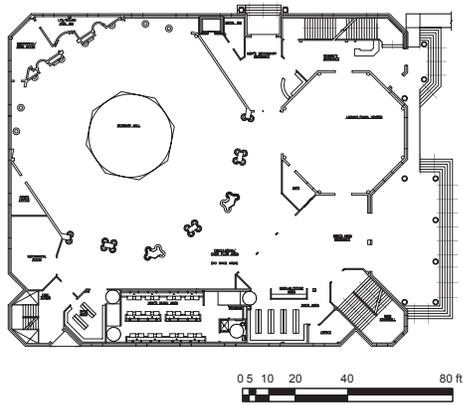
INTERIOR ELEVATION



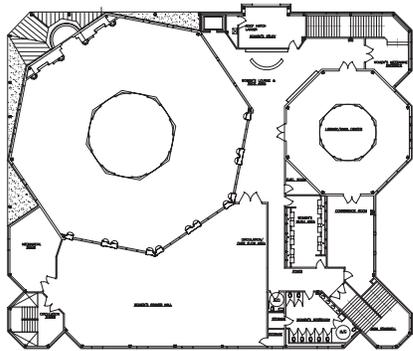
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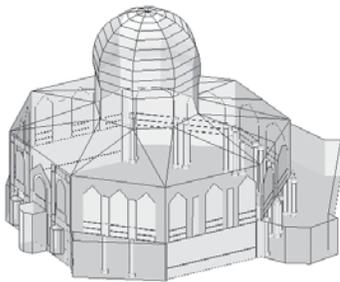
LEE SOUND DESIGN



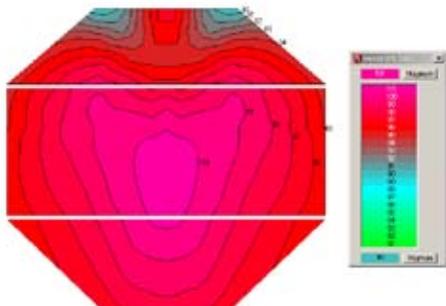
MAIN FLOOR PLAN



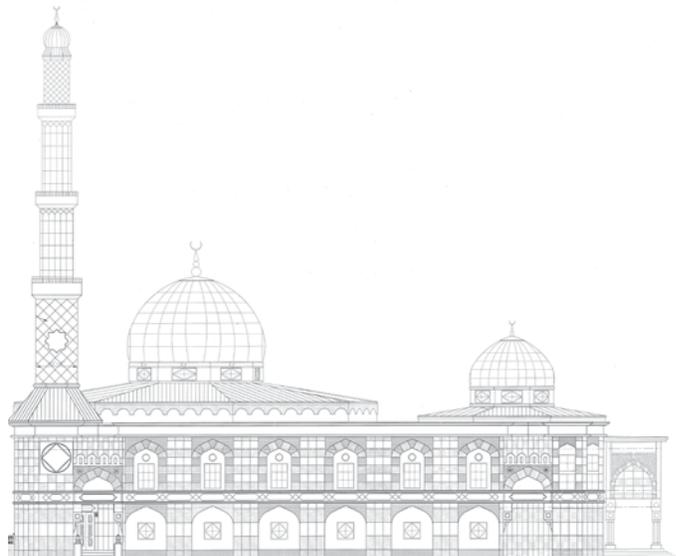
MEZZANINE FLOOR PLAN



RENDERING



LOUDSPEAKER COVERAGE - 1000 HZ DIRECT SPL



WEST ELEVATION