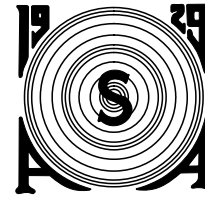


STUDENT DESIGN COMPETITION 2008



PRESENTED BY:

THE TECHNICAL COMMITTEE ON ARCHITECTURAL OF
THE ACOUSTICAL SOCIETY OF AMERICA,
THE ROBERT BRADFORD NEWMAN STUDENT AWARD FUND, AND
THE NATIONAL COUNCIL OF ACOUSTICAL CONSULTANTS

ANNOUNCEMENT AND DESIGN SCENARIO

The Acoustical Society of America's Technical Committee on Architectural Acoustics, with support from the Robert Bradford Newman Student Award Fund and the National Council of Acoustical Consultants, is sponsoring a student design competition to be judged and displayed at Acoustics'08, to be held in Paris, France from 29 June through 4 July 2008. The conference is jointly organized by the Acoustical Society of America, the European Acoustical Association and the Société Française d'Acoustique.

The Student Design Competition is intended to encourage students in the disciplines of architecture, engineering, physics and other curriculums that involve building design and/or acoustics to express their knowledge of architectural acoustics and noise control in the design of a facility in which acoustical considerations are of significant importance.

PARTICIPATION AND REGISTRATION

Entries may be submitted by individual students or by teams of a maximum of three students. Undergraduate and graduate students are encouraged to participate. Teams comprised of students from different institutions are welcomed. A faculty sponsor is required.

The Competition will be held as Structured Session AA08 at the Acoustics'08 conference, however attendance of the conference is not required for entry in the competition. Students are encouraged to attend the conference and should note the availability of travel grants from the sponsoring societies. See the conference website for contact information: <http://www.acoustics08-paris.org>

Please do not submit an abstract to the conference website for entry to the competition, as payment of conference registration fee is not required for participation. To register for the competition, email your intention to participate to studentdesigncompetition@gmail.com by 01 May 2008. Indicate the names of all team members and their affiliated academic institution(s). Indicate the name and email address of the faculty sponsor. The email address used for registration will be the single point of contact for the entire team.

PRESENTATION FORMAT AND SUBMISSION PROCEDURE

Entries are to be poster presentations. **Submissions shall be presented on two pages of standard ISO A1 size, 594mm by 841mm (23.38 inch by 33.11 inch).** Please account for 12mm (1/2 inch) margins. The long dimension of each page should be vertical when displayed.

The conference language is English.

Design and layout of the submissions should account for the presentation style. The font size, amount of narrative text, and number of graphs should be appropriate for poster viewing. A thoughtful viewing and analysis of the presentation should be possible in 4 to 6 minutes. Separate design details, calculations or other documentation may not be attached to the boards; such information will not be reviewed by the judges.

Entries should be submitted electronically in PDF or TIFF format. Email electronic files to studentdesigncompetition@gmail.com not later than 22 June 2008.

JUDGING AND AWARDS

The submitted poster presentations will be judged by a panel of practicing design professionals. The judges will include acoustics consultants and may include architects and theater consultants.

Entries will be evaluated on technical merit, design vision, adherence to the design scenario, and effectiveness of presentation.

An award of \$1,250 will be made to the individual or team with the entry chosen as "First Honors". Commendation awards of \$700 will be made to four individuals or teams of other outstanding entries. Awards are funded through a grant from the Wenger Foundation by the Newman Student Award Fund.

QUESTIONS AND CLARIFICATIONS

Questions regarding the competition requirements or clarifications about the design scenario may be directed to the organizers through studentdesigncompetition@gmail.com. Questions and answers deemed to potentially affect all entries will be copied to all participants.

DESIGN SCENARIO

A University in the downtown of a major city is participating in the development of a building project that combines a transit center, street-level retail, and a 12-story tower where the offices of the University will be consolidated. The University is exploring the inclusion of a new theater performance space in the project. Your team has been hired by the University to perform a conceptual design for the inclusion of the theater in the project.

The development site will occupy one-quarter of a city block, 38m x 54m. The transit center will be located below grade and will provide a connection between a subway line and city buses in a recently constructed bus tunnel. Retail space will occupy nearly all of the Ground Level, with the exception of the entry lobby for the University spaces. The theater and all of its associated spaces will occupy the First Floor (above Ground Level). University offices will occupy the Second Floor and the remainder of the tower.

Theater, support spaces, and front-of-house spaces will occupy an area of the First Floor that is planned to be approximately 1475m². The elevator core for the tower above and mechanical and electrical shafts will occupy a portion of this area. The mechanical room that will serve the theater and retail space is planned to be located on the remainder of the First Floor.

The floor-to-floor height of the First Floor has not been set and should be determined by the team.

THEATER

The University has requested a 350-seat thrust-stage theater for presentation of drama theater. Presentation of musical theater with live pit orchestra is not planned for this space.

The thrust stage should be no less than 36m². The portion of the stage that is upstage of the proscenium opening should be not less than 90m². The theater will not have a full flytower. Within the theater, a Control Room (approximately 20m²) should accommodate lighting and sound control from a mezzanine level.

SUPPORT SPACES

The backstage should accommodate moving scenery from a ground-level loading dock to the theater via elevator and to the stage. Two large dressing rooms (18m²) and two small dressing rooms (11m²) are required. A Green Room (approximately 16m²) should be included with the backstage area. A rehearsal room / classroom (60m²) and 5 faculty and operations offices (7m² each) are required. This rehearsal room / classroom may be used concurrently with the theater.

FRONT-OF-HOUSE

The Lobby should accommodate patron entry from the Ground Level via escalator and elevator. Lobby circulation, accommodations (box office, coat check) and public restrooms. The aggregate area should be no less than 275m².

TECHNICAL REQUIREMENTS

Design competition entries should emphasize the general building acoustics design, including room acoustics, noise control of building services, and acoustic isolation between spaces. While the architectural design and accommodation of theater technology is integral to the design of a functional building, the focus of the presentation should be the acoustic design.

Successful presentations will specifically address the following:

- Acoustic isolation from the transit center vibration and city noise
- Acoustic isolation to the retail tenant
- Acoustic isolation to office above
- Acoustic isolation of elevator noise and vibration
- Room planning for the theater, including dimensional relationships and room volume.
- Acoustic finishes for the theater and rehearsal room, particularly addressing low-frequencies
- Intelligibility of speech within the theater, independent of actor orientation
- Background noise criteria for critical spaces
- Supply and return air strategy for the theater and stage

While the design of the building ventilation and electrical systems is very important to the acoustical success of a project, it is not necessary for the presentations to indicate in detail the mechanical and electrical system design. Presenters should address conceptual noise and vibration control procedures relating air movement and electrical systems.

END OF ANNOUNCEMENT AND DESIGN SCENARIO