Classroom acoustics for architects

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The Acoustical Society of America (ASA) has published a free online booklet for architects to aid in the application of ANSI/ASA S12.60-2010/Part 1-American National Standard Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools, Part 1, the national classroom acoustics standard that applies to K-12 classrooms.

The aim of the booklet is to provide a practical guide to understanding and meeting the ANSI/ASA S12.60 classroom acoustics standard, targeted to both practicing and student architects. The booklet is structured to cover topics from introductory concepts to technical specifications. Some of the topics covered include Site Selection, Background Noise, Room Acoustics, Reverberation Time, Sound Transmission Class (STC), and Sound Reinforcement. The booklet also includes appendices on Mechanical/Plumbing issues, advanced calculations, and an Architects Checklist for meeting ANSI/ASA S12.60.

Good classroom acoustics is a cornerstone for communication and comprehension, which improves educational outcome and reduces stress. Efforts advocating the inclusion of ANSI standards in the International Building Code as well as adoption of elements of ANSI/ASA S12.60 into ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities Standard are ongoing.

The booklet was written by Peter Phinney, an architect, and David Woolworth, an acoustical consultant. Both authors are in private practice

and regularly teach at schools of architecture. The cross-disciplinary approach between architecture and acoustics was used to clearly convey the concepts while using a more architect-accessible language and graphics.

More information: The Classroom Acoustics Booklet for Architects, ANSI/ASA S12.60 Parts 1 and 2, and other supporting materials can be downloaded for free on the ASA website at http://www.acousticalsociety.org/about_acoustics/acoustics_of_classrooms.

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