
THORBURN ASSOCIATES INC.
Technology and Acoustical Consultants
Designing Quality Environments
eNewsletter

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Greetings!

The busy fall season is underway. Thorburn Associates will be present at the following industry events. If you're going, please look us up and say "hello."

HealthCare Design 09 conference, Orlando FL, Oct. 31-Nov. 1

Planning for Classroom Technology Workshop with Steve Thorburn, Denver, Nov. 2, prior to EduCause conference.

Educause Annual Conference, Denver CO, Nov. 3-6. Visit TA booth, #391.

Architecture Exchange East, Richmond, VA Nov. 4-6. Visit TA booth, #620.

DBIA Design-Build Conference and Expo, Washington DC, Nov. 5-7. Visit TA booth, #319.

IAAPA Attractions Expo, Las Vegas NV, Nov. 16-20. Steve Thorburn will be confirmed in his 2nd term as president of TEA (Themed Entertainment Association). TEA will also announce its annual Thea Awards recipients, and host the annual TEA party. If you're attending IAAPA, please look us up – you'll find Steve and Lisa at the TEA booth #6059.

As always, it is our goal to make sure that Thorburn Associates is your single point of contact for all your Technology and Acoustical Design services. If you have an idea, question or suggestions, please drop us a note at enews@ta-inc.com.

Focus on Acoustics
LEED Conflicts - The Impact Synergies Have
on Good Design Practices and Acoustics

Sustainable design and LEED requirements are transforming the building industry. But like any shift in practice, there's a domino effect. A number of sustainable design options that earn a building IEQ credits (indoor environmental quality) in some respects are at odds with achieving equally important acoustical goals. With creative engineering and an integrated design approach, these inherent conflicts can be resolved.

The LEED checklist of desirable features includes natural ventilation, thermal comfort and the use of recycled/low VOC finish materials, and these are all areas where "credit conflicts" frequently show up when it comes to also satisfying acoustical criteria. Speech privacy and sound isolation are challenging to achieve in a naturally ventilated building. On a noisy site, open windows let in street noise – buses, trains and auto traffic generate 69-75 dB, well in excess of the recommended 45 dB. In a quiet area, naturally ventilated buildings can be too quiet for speech privacy, lacking the background white noise of HVAC systems. Hard surfaces bounce sound while they reflect light.

These design paradoxes – and others – all have acoustical engineering solutions, such as the use of partitions and sound masking devices, acoustical banners, the judicious choice of finish materials and the selection of windows and doors. TA has successfully applied these and other sustainable design solutions on a variety of projects for over 10 years.

Lisa Thorburn's class, "LEED Conflicts – The Impact Synergies Have on Good Design Practices and Acoustics" is available for booking as a lunch-and-learn and approved as an AIA continuing education session. It was given recently at the AIA California Council, to excellent reviews. Contact any member of TA staff to schedule it. Attendees earn one (1) AIA HSW (Health Safety Welfare) SD (Sustainable Design) learning unit.

Focus on Technology
Planning for Classroom AV and Multimedia
(Nov. 2 workshop with Steve Thorburn)

It is no longer adequate to simply consider technology in the classroom as an afterthought once the construction or renovation is complete. Nor is it advisable to proceed with elaborate designs without considering their impact upon existing lines of business and budgets.

Led by Steve Thorburn, the **Planning for Classroom Technology** workshop Nov. 2, 2009 in Denver (just prior to the Educause conference) provides knowledge and tools that will benefit anyone involved in the planning of audiovisual technology in the classroom or providing system support. Participants will discuss how to approach the integration of audiovisual systems into classroom buildings and identify potential problems.

Audiovisual (AV) technology and multimedia are powerful teaching and learning tools. The underlying technology is complex, but the student/instructor experience doesn't have to be. There are new tools and knowledge to optimize AV technology in the classroom, and to deliver support. This workshop provides the foundation needed to recognize the components of a successful learning space design.



The workshop is targeted to benefit CIO's, IT Directors, facility managers, interior designers, architects and anyone who is involved in the planning or design of formal or informal learning spaces, or responsible for AV presentation technology. The session runs 8:30-4:30 pm. Attendees will earn 6 AIA Certified Continuing Education Units or 6 InfoComm Renewal Units, and receive a detailed workbook to keep. For those not working on a classroom building, the information in the classroom technology workshop is easily applied to the same issues, goals and concerns encountered in corporate and public meeting, training and conference spaces.

To register or for more information, telephone Christina LeClerc at Thorburn Associates, 510-886-7826 ext 205, email planning@ta-inc.com or visit the workshop website at www.ta-inc.com/planning.

Project Profile **Kern County Emergency Operations Center**

Working with BFGC Architects Planners Inc., TA recently provided acoustical and audiovisual consulting services for the new County of Kern Emergency Operations Center (EOC) located in Bakersfield, CA. This standalone facility, nearly 7,000 square feet in size, is designed to be the command center for County operations during a disaster/emergency situation, and when not operating under an emergency situation, it is utilized by the Kern County Fire Department for training, video teleconferencing, meetings and presentations.

The three principal areas are the Emergency Operations Center (EOC), the Media Room/Joint Information Center and the Conference Room.

The EOC room is the functional center of the facility. Representatives from various county, city and state services will occupy its 49 workstations during operation. TA's design included flat panel displays on the walls for independent viewing and a large, 9-foot by 16-foot projection wall with the ability to display up to six images simultaneously from different source inputs.

In addition to cable, satellite and video conferencing, every workstation can have its image displayed in the EOC, and any master image viewed in the EOC can be sent to the executive conference room and Media Room/Joint Information Center.

Field DVD's and video tape feeds can also be displayed for the team to view time-critical data that has been messengered in. There is also a wireless control touch panel that can roam the building and control any of the rooms. The commander has a wireless microphone to address the team in the EOC.

The Media Room and Joint Information Center are contained within a divisible conference room with an acoustical partition, movable seating and a mobile lectern with wired and wireless microphones. This space can also receive a direct AV feed from the EOC.

The 14-seat Conference Room, designed for smaller breakout meetings, has a fixed table in the center and front projection with two flat panel displays on either side, to project different source material. This room can also receive an AV feed from the EOC and is set up with videoconferencing cameras, microphones and CODEC.

In keeping with owner needs, the system was designed to provide good coverage for audio and video and maximum versatility while requiring minimal staff to maintain and operate.

TA was pleased to be selected to assist in creating this state-of-the-art, centralized emergency and disaster response site that supports multiple agencies and jurisdictions in the State of California.

Product Review Fabric Duct

Fabric duct products, such as DuctSox, are often specified nowadays as a lower cost alternative to traditional metal ductwork for large spaces - such as gymnasiums, cafeterias, and convention halls - where large volumes of air need to be evenly distributed throughout. Manufacturers of fabric ductwork tout its many benefits: low installed cost, low maintenance, many color choices.

Before you decide, we recommend you weigh the benefits and cost savings against other factors, noise control in particular. Because it cannot be internally lined or externally wrapped, fabric ductwork reduced noise control options and may incur additional expense to achieve an acoustically acceptable space.

Using fabric duct may necessitate relocating the air handler further away from duct openings or inserting duct silencers into the path for noise mitigation. When a variable volume system is used, it causes fabric ductwork to inflate and deflate, resulting in a noise similar to the whooshing and snapping of a sailboat sail changing direction in the wind. In addition to the distraction of the noise, the process is visually unsettling.

While fabric duct can be an extremely useful product, it is not a universal solution. Consider the needs of your space carefully before choosing fabric over metal.

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