

## PROJECT PROFILE: ELEMENTARY SCHOOL



**PROJECT:** SADDLE PEAK ELEMENTARY  
Belgrade, Montana

Big Sky Acoustics was selected as part of the design team to provide acoustical design services, in order to enhance the experience of students and staff and to limit noise-related distractions and disturbances. The District envisioned a *21st Century learning environment designed for flexibility*, to enhance individual, team and group learning, and allow educators to collaborate and integrate skills into their classrooms.

**BSA's SERVICES AND SOLUTIONS:**

- ◆ Developed computer models to predict the reverberation time and analyze the acoustical characteristics of the classrooms, gymnasium, library, multipurpose/commons area, and music room.
- ◆ Determined the type, amount and placement of acoustical treatments to control overall noise levels and enhance speech intelligibility.
- ◆ Specified an acoustical concrete block wall construction to balance the gymnasium room acoustics.

- ◆ Ceiling treatment options included: mineral board ceiling tiles for the core learning areas, impact-resistant tiles in the gym and multipurpose/commons, and perforated wood ceiling panels and spray-on material in the library.
- ◆ Recommended several wall constructions to meet required Sound Transmission Class (STC) ratings between noise-sensitive rooms. Specified STC 30 door assemblies for classrooms, conference rooms and offices, and provided several product options.
- ◆ Predicted the interior noise levels of the proposed mechanical system serving each noise-sensitive space.
- ◆ Recommended mechanical noise control measures to provide acceptable background noise levels in the learning spaces. Provided specifications for the air-handling units, duct liner, duct gage thickness, sound attenuators, and equipment spring vibration isolators.

BSA worked closely with the design team to ensure that practical, cost-effective and aesthetically pleasing acoustical design and noise control measures were incorporated into the project.