

Big Sky Acoustics, LLC

PROJECT PROFILE: HUD NOISE STUDY



PROJECT: ATHERTON APARTMENTS
Butte, Montana

The Public Housing Authority of Butte applied for a HOME Investment Partnerships Program Grant for acquisition and rehabilitation of the Atherton Apartments. In order to meet the funding requirements, BSA completed an Environmental Noise Assessment and compared the results to the U.S. Department of Housing and Urban Development (HUD) site acceptability requirements.

BSA's SERVICES AND SOLUTIONS:

- Completed the HUD calculations and worksheets. Aircraft, roadway traffic and railroad operations were evaluated to predict the exterior noise levels.
- Determined the HUD worksheets over-predicted the noise levels because the calculations don't account for shielding effects of grade and elevation changes, or barrier effects from existing buildings.
- Developed a Cadna-A computer model using site plans, architectural drawings and topographic maps, to visually indicate the changing noise levels on the property.
- Completed interior and exterior noise level measurements to determine the noise level reduction (NLR) of the Phase I and Phase II buildings.
- Determined the existing building envelopes are providing enough attenuation to meet the HUD interior noise level goal, and therefore, no additional attenuation is required for the buildings.

BSA's scientific approach provided the Authority proof that building modifications were not necessary, and supplied HUD with the required grant information.

