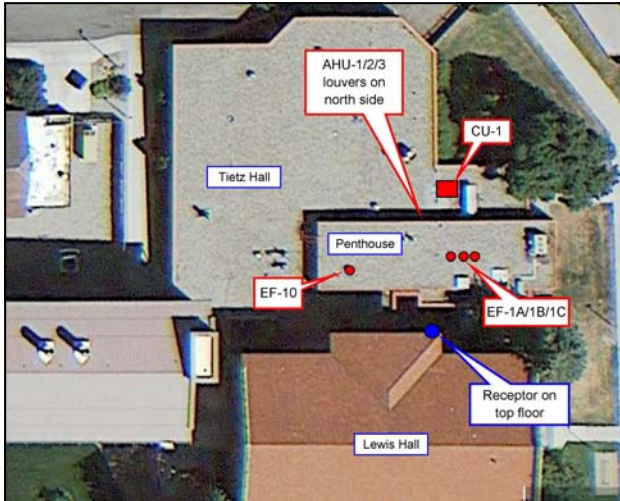


Big Sky Acoustics, LLC

PROJECT PROFILE: ROOFTOP MECHANICAL EQUIPMENT

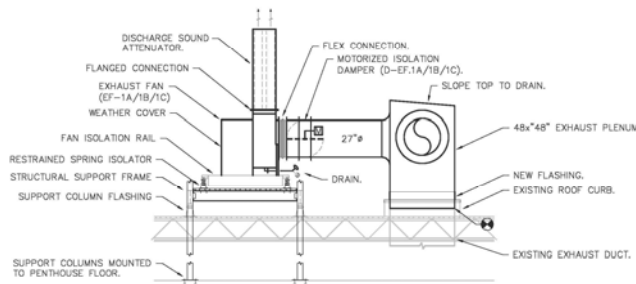


PROJECT: MSU Tietz Hall
Bozeman, Montana

Montana State University is replacing several pieces of mechanical equipment on the rooftop of the mechanical penthouse at Tietz Hall including exhaust fans, air-handling units and a condensing unit. MSU was concerned about the noise levels of the equipment inside the offices overlooking the equipment, and determined the noise of the new equipment shall not exceed 48 dBA at the north face of Lewis Hall.

BSA's SERVICES AND SOLUTIONS:

- Predicted the total noise level (58 dBA) outside the top floor Lewis Hall receptor location, due to the new equipment, using the Cadna-A noise prediction software.
- Evaluated noise control measures to control the equipment noise.
- Determined the performance characteristics and recommended 5-foot long sound attenuators in the three primary exhaust fan stacks.
- Concluded that if the recommended noise control measures are implemented, the equipment noise level outside Lewis Hall will be 43 dBA.



3 EXHAUST FAN INSTALLATION DETAIL (EF-1A/1B/1C)
NO SCALE

BSA's analysis assured MSU that the noise of the new rooftop mechanical equipment will be controlled inside the offices of Lewis Hall, even when the windows are open.