

A. Alfred Taubman Biomedical Science Research Building Vivarium Expansion



Project Description

The approximately 594,000-gross-square-foot A. Alfred Taubman Biomedical Science Research Building (BSRB) was built in 2005 and included approximately 34,500 gross square feet of shelled space for future research support needs. Approximately 7,000 gross square feet of the shelled space was previously finished in 2006 to create an animal imaging facility. The Medical School will finish approximately 20,000 gross square feet of the remaining shelled space to expand the existing vivarium to address current and forecasted growth and to accommodate the relocation of germ-free vivarium functions from the Life Sciences Institute to BSRB.

Energy Efficiency Measures

- Vivarium (animal) rooms utilize an animal housing system that pipes supply air directly to each rodent cage. This ventilation systems requires significantly less air than a traditional room-supplied system. It will also maintain a more constant temperature for the animals and decrease the noise level of the ventilation system (a benefit for both animals and staff). Ganging multiple ventilated racks on a single air valve also reduced the initial cost to install the ventilation system.
- In a number of critical areas within the building, including the energy intensive vivarium cage and rack washing room, automated systems will sense when active washing is taking place. During periods between wash cycles, the volume of conditioned air supplied to the cage and rack washing room will be automatically reduced, effectively reducing the energy cost of the building.
- As this project is a continuation of the existing vivarium spaces and fit out of the remaining shelled space in the building, the project connects to all existing air handling, plumbing, electrical and fire protections systems. No new systems are added and the existing energy efficiency measures will be maintained.
- The indoor lighting system will consist primarily of LED lighting fixtures and the lighting controls will consist of low-voltage switches controlled by programmable low-voltage switching and dimming relays through the existing U-M Siemens lighting system.