

Christopher Bratz
Pennsylvania State University
Architectural Engineering
Mechanical Option

Faculty Advisor:
Dr. Jelena Srebric

December 12th, 2008

Breadth Redesign Proposals

Electrical Proposal

Throughout the Amini Center, many T8 lighting fixtures are implemented. Due to strict lighting power densities and the attempt for LEED Gold certification, better lighting fixtures will be looked at in order to reduce the energy consumption of the building. In many of the office area where T8 fixtures are dominant, T5 fixtures will be looked at to reduce wattage while maintaining an equal lighting level. Outdoor metal halide lights will also look to be replaced with more efficient lights, specifically LED lights. The cost, pay back, energy consumption, lighting quality, along with the effect on LEED and the mechanical system will be evaluated.

Acoustical Proposal

Due to the size and type of equipment being selected in the redesign, acoustical aspects will be evaluated to ensure there are no noise issues with the surrounding spaces. Wall types and enclosures for the chiller plants will be assessed to reduce any noise pollution.