

Executive Summary

For the Spring Semester I have proposed to evaluate the Philadelphia School District Administration Headquarters based on the actual load within the building. When the original shell and core design was completed, the specific space usage and occupancy was not known which created a very conservative design. The actual load will be investigated using the fit-out documents for the project. The current system with newly sized equipment will be evaluated against a new chilled water system.

The second system will comprise of a central chilled water plant and will be designed based on pump and piping first cost savings and energy savings. This design is primarily based on interest in the topic and will hopefully benefit future design in a professional environment.

The final analysis will be based on a variety of factors: first cost, operating cost, required maintenance, energy consumption, and emissions. A decision will be made on whether to suggest the chilled water plant or to suggest keeping the all electric based air handler system.