



**Rodrick A. Crousey**  
Mechanical Option

**George W. Hays PK-8**  
Thesis Proposal



## Executive Summary

This proposal considers variations to the design George W. Hays PK-8 Public School in Cincinnati, OH. These variations are related to a major mechanical system change which will then be analyzed during the spring semester of 2007 using various programs, including existing programs such as Carriers Hourly Analysis Program. The success of the proposed idea will be determined in comparison to the original design with respect to building cost, building aesthetics, the affect on the occupants of the building and the buildings affect on the community around it.

The proposal is for an ice storage system in coordination with a chiller to replace the existing 170 ton chiller. This proposal will naturally bring complications in the structural design of the building along with complications in the construction of the building. Multiple structural and construction options will be looked at. By reducing the electrical demand charge, the ice storage system has the potential of achieving a lower life cycle cost and building operation then the initially designed system.

The preliminary research for the proposals is also highlighted in this report along with a proposed semester calendar for the fall semester of 2007. This calendar displays dated goals for achieving the major milestones for this project.