

## **1.0 Executive Summary**

The purpose of this report is to summarize the information attained in the previous three technical assignments, in an effort to propose a mechanical system redesign for the M Resort. If approved, this proposal will serve as a guideline for research and work throughout the spring semester.

Various alternatives are described in this report, with a final redesign being proposed as well. The focus of the redesign for the M Resort will be a combined heating, cooling and power system. This was chosen due to the high electrical and thermal loads as well as a reduced life cycle cost and overall energy consumption. Due to the scope of work presented, the breadth topics deal mainly with the electrical and structural building systems. Finally, a tentative work schedule has been laid out in order to facilitate the completion of the project for next semester.