



LIBRARY OF CONGRESS

NATIONAL AUDIO VISUAL CONSERVATION CENTER

MALORY J. FAUST
MECHANICAL OPTION
SENIOR THESIS 2006-2007

1. EXECUTIVE SUMMARY

The NAVCC is designed to serve many functions including storage, conservation, and enjoyment of all media types. This 400,000 square foot facility is designed to ensure the protection of the all media to pass through and reside in within its walls. This includes very intense cooling and dehumidification systems, 100 % out door air systems, many levels of redundancy, and a vast range of controls and monitoring devices. Provided in this report is a summary of each system used to maintain the functionality of each space, ventilation requirements, space design criterion, heating and cooling load calculations, energy model results, and schematic and operation information. The result will provide an understanding of each system, space, and how they interact with each other.