HARRY RANSOM CENTER RENOVATION
University of Texas at Austin

MICHAEL ANTHONY LOMBARDI
Lighting/Electrical Emphasis
The Pennsylvania State University
Dr. Richard Mistrick, Advisor

ELECTRICAL SYSTEMS EXISTING CONDITIONS
BUILDING LOAD SUMMARY
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Related Documents:
HRC_riser_diagram.pdf
HRC_Utexas_rate_model 2007.pdf

Executive Summary

The Electrical Systems Exiting Conditions and Building Load Summary incorporates a detailed look at all electrical components associated with the Harry Ransom Center. A narrative descriptions of pertinent electrical components is provided, as well as useful documentation such as a building riser diagram, sample emergency power cost calculation, and a University of Texas power systems rate model for the year 2007. Main distribution panels as well as associated breaker panel boards for the first and second floor renovation were analyzed for proper feeder and branch circuit sizing. Limited documentation of electrical systems on floors three through five as well as inadequate documentation of existing primary building electrical control devices resulted in the use of the building area method as prescribed in NEC 2005 to estimate overall building energy consumption. This estimated consumption was checked with building transformer sizes to verify the system can properly handle expected building loads; main busway feeder sizes were not documented during the renovation project and are unknown.

It was determined all distribution panels, feeders, and branch circuits were sized properly. The estimated overall building load was less than the sum kilovoltampere load of building transformers. It was also recorded that several areas of the building may have been illogically or improperly wired to control devices. Some lighting systems are not functioning properly, and the ability for the building occupant to control certain exterior and interior systems is either not possible or limited.