

JOSHUA KREUTZBERGER
LIGHTING/ELECTRICAL
EXECUTIVE SUMMARY (TECH. #2)
OCTOBER 25, 2006
PROF. DANNERTH
DORRANCE H. HAMILTON BUILDING
PHILADELPHIA, PA



EXECUTIVE SUMMARY

This report is a summary of the existing electrical systems, such as the power distribution systems and communications systems. Each section contains a narrative describing the general and special characteristics of every part of the electrical system analyzed. A summary of the total building electrical loads and a check of the existing main distribution equipment is included in the section titles NEC Design Loads. The appendix includes a single line and riser diagram, which represent the power distribution system of the building. The Dorrance H. Hamilton Building is a part of the Thomas Jefferson University (TJU) located in Philadelphia, PA.

Analysis starts at the service entrance and finishes at the end utilization based on the given information in the construction documents. The National Electric Code was used extensively throughout the calculation process to determine the correct demand loads. The evaluation of the total building load came out to be low compared to the size of the main bus duct. To explain this occurrence, the sixth floor of the building is empty. The sixth floor is not used at the moment and will be utilized at a later date.