

Higher Technical Institute
ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

**DESIGN OF THE ELECTRICAL SERVICES
OF A BANK OFFICE**

BY:
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E/1166

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HIGHER TECHNICAL INSTITUTE

ELECTRICAL ENGINEERING COURSE

DIPLOMA PROJECT

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SERVICES OF A BANK OFFICE**

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BY : CHARALAMBOUS HARIS

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PROJECT REPORT

Submitted to the Electrical Engineering Department
of the Higher Technical Institute
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SUMMARY

This project deals with the design of the electrical services of a bank office consisting of one floor, including the mezzanine floor, ground floor and the basement.

Illumination design and calculations were first carried out and then follows the electrical design of the building.

Furthermore, a telephone distribution and data distribution as well was carried out and then the cost of the electrical installation for the building was estimated ,including labour.

Finally, the drawing indicating the position of control switches and the arrangements of the final circuits were made as well as the single line diagrams.

INTRODUCTION

The aim of this project is the design of the electrical installation of a bank office.

The objectives of the project are the follows:

1. To design the complete electrical installation of an office block to include the following :
 - (i) Power
 - (ii) Lighting
 - (iii) Telephone distribution
 - (iv) Data distribution
2. To provide all necessary diagrams schedule of materials and costing including labour.

Terms and conditions

1. Three-phase 415 Vrms 50Hz, T.T. earthing system.
2. Architectural drawing will be provided.
3. The IEE Wiring Regulation 16th Edition are currently amended and the local EAC conditions of supply must be complied with.
4. The illumination design must be in accordance with CIBS code.
5. CYTA requirements to be taken into consideration.

First, for the selection of lamps and luminaires, illumination calculations were carried out.

Then, the design of lighting and socket outlet circuits were carried out. The calculations were done for some representative circuits.

Also, the design of telephone distribution and data distribution as well were carried out.

Finally, the estimation of the cost of the electrical installation was done, based on the recent prices of the materials in the local market. The labour costs including overheats and a reasonable profit were considered.