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HIGHER TECHNICAL INSTITUTE

NICOSIA – CYPRUS

ELECTRICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

DESIGN OF THE ELECTRICAL SERVICES OF A MULTISTORY BUILDING

E.1422

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JUNE 2007

HIGHER TECHNICAL INSTITUTE	PROJECT NO
	3716

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ACKNOWLEDGEMENTS

I would like to express my sincere appreciation to my project supervisor Mr. A Georgiou, Lecturer of the Higher Technical Institute, for his help, advice and constructive criticism and comments generously given throughout the project work.

Also I would like to thank C Georghiades, Senior Instructor of Engineering Practice Department for Electrical Engineering of the Higher Technical Institute, for his valuable help with his experienced advices in Electrical Installations.

Finally I thank all those who helped in any other way such as providing necessary information and data-sheets for the proper completion of this project.

SUMMARY

The purpose of the electrical installation project is the design of electrical services in a modern multistory building, providing all the comforts to its occupants and which must be carried out according with responsibility in order to provide safety to them under the worst case.

The electrical installation design of the building is carried out according to IEE Regulation of Sixteenth Edition.

The design of the building is explained in details in the book. The book has been divided into different chapters. The contents of the book and of each chapter are given at the beginning. All the electrical design calculations are including in architectural drawings which provided. At the end of the book there are appendices. In each appendix there are tables and manufacturers data used in the design for each equipment.

INTRODUCTION

The title of this project is "DESIGN OF THE ELECTRICAL SERVICES OF A MULTISTORY BUILDING". Many times we can see that in some installations because of wrong calculations in the electrical design it can be caused fire, electric shock to peoples, low efficiency of the lighting and many other.

The objectives of this project are:

To design the complete and correct installation of a multistory building which include the following:

1. Illumination Design
2. Lighting
3. Power
4. Lightning protection system
5. Telephone design
6. Central antenna distribution
7. Fire alarm system
8. Storage Heater

To provide all necessary calculations, drawings and costing including labor.

The main purpose of electrical services of a multistory building is to install an electrical installation with:

1. Minimum cost
2. Maximum safety
3. Maximum reliability
4. Maximum flexibility in changes, usage and expansions

TERMS AND CONDITIONS

1. Architectural drawings will be provided.
2. The IEE Regulation Sixteenth Edition and all EAC conditions of supply should be considered.
3. Three-Phase supply 415V, 50Hz and TT earthing system must be used.
4. Levels of illuminations must be in according with the CIBS code.
5. All switches are mounted 1.2m above the floor and sockets are mounted 0.4m above the floor. Distribution boards are mounted 1.5m above the floor
6. External earth fault impedance is chosen to be $Z_e = 1\Omega$