PREPARATION OF BILL OF QUANTITIES USING COMPUTERS

BY

MARIOS L. CONSTANTINOU

&

ANDREAS L. MYSTIRIOU

Project Report Submitted to the Department of Civil Engineering of the Higher Technical Institute (H.T.I.) Nicosia, Cyprus

June 1994



ACKNOWLEDGMENTS

We would like to express our thanks to Mr. A. Kkolos our project supervisor and lecturer in H.T.I. for his help in getting started with this project.

Especially we would like to express our appreciation for the valuable assistance rendered to us during the cource of the execution of this project to Mr. S. Andreou, Director of M.D.A. Quantity Surveyors.

Special thanks also to all good friends, for the help and courage they have given us in difficult times.



BILLS OF QUANTITIES

There are two types of Bills of Quantities:

- 1. Trade bills.
- 2. Elemental bills

1. Trade bills

A typical division of a trade bill for quantities would be:

- 1. Preliminaries
- 2. Excavation and earthwork
- 3. Concrete work
- 4. Brickwork and blockwork
- 5. Roofing
- 6. Woodwork
- 7. Plumping installations
- 8. Floor, wall and ceiling finishings
- 9. Glazing
- 10. Painting and decorating
- 11. Drainage
- 12. Prime cost and provisional sums.

The advantage of this method is that the pricing of the Bills of Quantities at tendering stage can be done very easily.

2. ELEMENTAL BILLS

Elemental bills are devided in sections in accordance with the various main sections of the building e.g.

Internal walls External walls Floors etc. The disadvantages of the elemental bills is that the pricing of the Bills at tendering stage is complicated as the same item of work may appear in different sections of the bills. Thus there is unnecessary repetition of the same prices in different sections of the Bills, whilst the full extend of each item of work, which affects the prices considerably, can only be known by adding up the quantities for this item that appear in different sections of the Bills.

The advantage of this method is that the location of most items will be apparent by their position of the Bills of Quantities. This facilitates the administration of the contract on site (e.g. ordering materials, deciding the required number of operatives on site, preparing interim valuations etc.).

Trade Bills are generally more widely used than elemental bills.

CONTENTS

1. SECTION 1

Bills of Quantities in general.

2. SECTION 2

Methods of Taking-Off

3. SECTION 3

Methods of preparing Bills of Quantities

4. SECTION 4

The use of computers in Quantity Surveying in Cyprus

5. SECTION 5

Taking-Off

6. SECTION 6

Input of values to the Computer

7. SECTION 7

Abstracting

8. SECTION 8

Bill of Quantities

9. SECTION 9

Conclusions

10. SECTION 10

Drawings