

**PREPARATION OF A BILL OF QUANTITIES USING THE
TRADITIONAL METHOD**

C/1022

by

Maria Kotsonia

Project report submitted to the
Department of Civil Engineering

of the Higher Technical Institute

Nicosia Cyprus

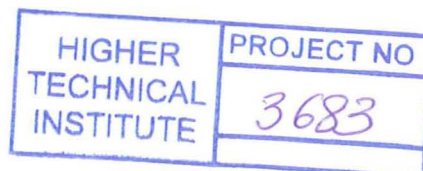
in partial fulfilment of the requirements for the diploma of

TECHNICIAN ENGINEER

in

CIVIL ENGINEERING

June 2007



Summary

The objective of this project was to prepare the Bill Of Quantities of a two – storey house using the traditional method, according with the Standard Method of Measurement 7th edition. This was accomplished through three steps:

1. Taking – off
2. Abstracting and Squaring
3. Preparation of Bill Of Quantities

For every new project there is the first step and the last step. For establishing the desirable result each and every step between must be accomplished by organization and cooperation.

These two things are very essential in Civil Engineering and as Civil Engineer or Quantity Surveyor you have to think and act organized.

In order to help all the members that contributes for the construction of a project to be organized and have a forehand view so as to be prepared for every difficulty, Bill Of Quantities is prepared at an early stage.

Bill Of Quantities is a document usually prepared by a quantity surveyor which (ideally) details the terms and conditions under which a contract is to be let, and itemises all works to enable a contractor to price the work for which he is bidding. The first main step in preparing a bill is the "taking off" or recording of dimensions from drawings or schedules of work. Similar types of work are then brought together under one item, a process known as "abstracting", all of this information is then "worked up" into the bill of quantities.

Bill Of Quantities is very essential step since all contractor's tender price is on exactly the same information. It provides a basis for the valuation of work as the project proceeds and an ideal basis for the feedback of information for future use in cost planning. Also gives a precise description of, and quantifies the components parts within a project, and is of great assistance to the contractor when planning and controlling the work.

So it's very important for a Civil Engineer knowing following a Bill Of Quantities as it helps the employers interest, and the contractor to know the exact rates of materials so as to keep in budget for every section that finished and any alterations during the contraction.

CONTENTS

CHAPTER 1: INTRODUCTIONS

- 1.1 Function of Bills
- 1.2 Method of Measurement
- 1.3 Practice in the Building Industry
- 1.4 Mistakes in Bills
- 1.5 Apportionment of Responsibility for Bills
- 1.6 Standard Forms
- 1.7 The content of a bill of quantities
- 1.8 Methods of preparing the Bill of Quantities
- 1.9 Cyprus Method of measurements Vs Standard Method of Measurement 7th edition.

CHAPTER 2: TAKING – OFF

CHAPTER 3: ABSTRACTING AND SQUARING

CHAPTER 4: BILL OF QUANTITIES

CHAPTER 5: FINAL BILL

CHAPTER 6: CONCLUSIONS

CHAPTER 7: REFERENCES

CHAPTER 8: ATTACHED MATERIAL 1. DRAWINGS

TABLES

Table 1.1: SMM7 Vs Christophorides Makris & Partners

FIGURES

FIGURE 1.1: SMM7 EXTRACT (SECTION D – GROUNDWORKS)

FIGURE 1.2: SMM7 EXTRACT (SECTION D – GROUNDWORKS)

**FIGURE 1.3: C.M & PARTNERS EXTRACT (SECTION D –
GROUNDWORKS)**

**FIGURE 1.4: C.M & PARTNERS EXTRACT (SECTION D –
GROUNDWORKS)**

**FIGURE 1.5: SMM7 EXTRACT (SECTION E20 – FORMWORK FOR IN
SITU CONCRETE)**

**FIGURE 1.6: SMM7 EXTRACT (SECTION E20 – FORMWORK FOR IN
SITU CONCRETE)**

**FIGURE 1.7: C.M & PARTNERS EXTRACT (SECTION F – CONCRETE
WORK: FORMWORK)**

**FIGURE 1.8: C.M & PARTNERS EXTRACT (SECTION F – CONCRETE
WORK: FORMWORK)**

FIGURE 1.9: SMM7 EXTRACT (SECTION M – SURFACE FINISHES)

**FIGURE 1.10: C.M & PARTNERS EXTRACT (SECTION O –
FINISHINGS)**