ELEMENT METHOD OF COST CONTROL

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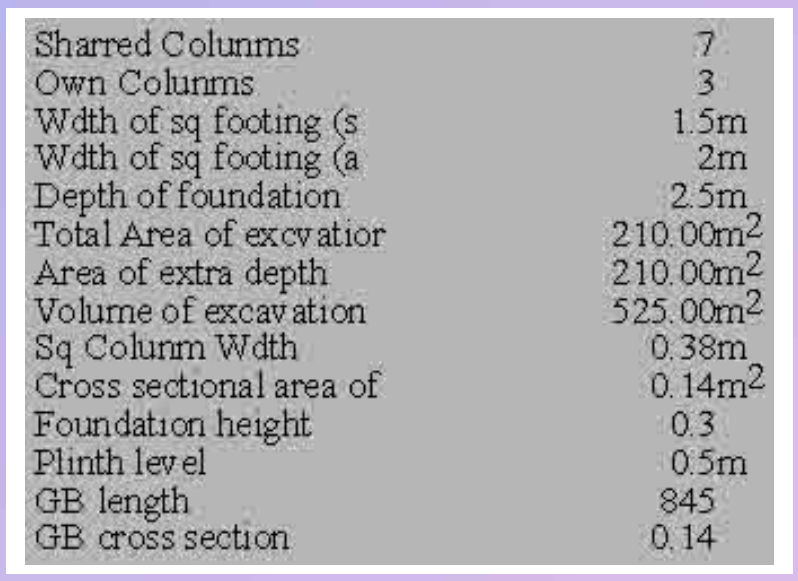
ABSTRACT
The 'Element method of Cost Control' introduces a hierarchical set of functional building elements. There are two groups of elements in building construction. The space delimiting elements are the elements, which are able to define spaces such as roofs, walls, floors etc. The space equipping elements are those, which furnish the space such as sanitary, electrical or air-conditioning elements. The elements are then sub divided into sub elements such as ground floor, curtain wall, internal wall etc.

Another very important advantage of this element method is that it helps to make reliable predictions starting from the first phase of the design process and can be used when the project is being implemented. So cost - checking is not postponed for the time of completion of the project.

The advantage of making a model is that we can easily understand the links between other elements of construction such as time and production. The more all those aspects are integrated in one bigger model, the more specific the model becomes. As a consequence, the model will never be suited to another context. But it eventually serves two main purposes: to enhance the insights in all those cross-links and to stimulate the elaboration of integrated models appropriate for a given context.

EXCERPT FROM THE TEXT

The different elements may be defined as Foundation, Floor on ground, Suspended floors, External wall, Internal wall, Roof etc. as mentioned earlier. The study in this article contains detail costing of only one element (i.e. Foundation) due to shortage of space.
In this example, the element is defined as the minimum unit, which can be replicated in the project. It is assumed that a group of 10 buildings of 4 stories (one neighborhood block) is a replicable unit. So when an element is mentioned, it is a combination of 10 four-storied housing units.



Sharred Columns	7
Own Columns	3
Width of sq footing (s	1.5m
Width of sq footing (a	2m
Depth of foundation	2.5m
Total Area of excvation	210.00m^2
Area of extra depth	210.00m^2
Volume of excavation	525.00m^2
Sq Column Width	0.38m
Cross sectional area of	0.14m^2
Foundation height	0.3
Plinth level	0.5m
GB length	845
GB cross section	0.14

CONCLUSIONS: CONTROLLING BUDGETARY RESTRICTION
The different building elements like foundations, floors, walls, suspended floors and roofs can be analysed using the element method as a tool for cost control. The spreadsheets can be organised in different parts for a better analysis of the elements. Ratios are especially useful in order to express the importance of one entity of a lower level with another of a higher level.

From the analysis it can be observed that each change in materials and size resulted in a change of the total cost of all elements. Different comparisons can also be made for each element of the project in order to compare different solutions. In this way, the element method proves to be an efficient tool for managing and controlling costs during the design process.