Estimating & Costing -1

Slide Making By : **Nur Nahar Akter Santa**
Jr .Instructor
Civil Technology
Daffodil Institute of IT,Chittagong

TYPES OF ESTIMATES

3.1 DETAILED ESTIMATE:

The preparation of detailed estimate consists of working out quantities of various items of work and then determine the cost of each item. This is prepared in two stages.

i) Details of measurements and calculation of quantities:

The complete work is divided into various items of work such as earth work concreting, brick work, R.C.C. Plastering etc., The details of measurements are taken from drawings and entered in respective columns of prescribed proforma. the quantities are calculated by multiplying the values that are in numbers column to Depth column as shown below:

Details of measurements form

S.No	Description of Item	No	Length (L) m	Breadth (B) m	Depth/ Height (D/H)m	Quantity	Explanatory Notes

ABSTRACT OF ESTIMATE FORM

Item No.	Description/ Particulars	Quantity	Unit	Rate	Per (Unit)	Amount

The detailed estimate should accompained with

i) Report

ii) Specification

iii) Drawings (plans, elevation, sections)

iv) Design charts and calculations

v) Standard schedule of rates.

3.1.1.Factors to be consisdered While Preparing Detailed Estimate:

i) **Quantity and transportation of materials:** For bigger project, the requirement of materials is more. such bulk volume of mateials will be purchased and transported definitely at cheaper rate.

3.2.1 Fixing of Rate per Unit of an Item:

The rate per unit of an item includes the following:

1) ***Quantity of materials & cost:*** The requirement of mateials are taken strictly in accordance with standard data book(S.D.B). The cost of these includes first cost, freight, insurance and transportation charges.

ii) ***Cost of labour:*** The exact number of labourers required for unit of work and the multiplied by the wages/ day to get of labour for unit item work.

iii) ***Cost of equipment (T&P):*** Some works need special type of equipment, tools and plant. In such case, an amount of 1 to 2% of estimated cost is provided.

iv) ***Overhead charges:*** To meet expenses of office rent, depreciation of equipment salaries of staff postage, lighting an amount of 4% of estimate cost is allocated.

3.3 METHODS OF PREPARATION OF APPROXIMATE ESTIMATE:

Preliminary or approximate estimate is required for studies of various aspects of work of project and for its administrative approval. It can decide, in case of commercial projects, whether the net income earned justifies the amount invested or not. The approximate estimate is prepared from the practical knowledge and cost of similar works. The estimate is accompanied by a report duely explaining necessity and utility of the project and with a site or layout plan. A percentage 5 to 10% is allowed for contingencies. The following are the methods used for preparation of approximate estimates.

a) Plinth area method

b) Cubical contents methods

Types of Estimates

a) Area of walls at floor level.

b) Internal shafts of sanitary installations not exceeding 2.0m^2, lifts, airconditionsing ducts etc.,

c) Area of barsati at terrace level:

Barsati means any covered space open on one side constructed on one side constructed on terraced roof which is used as shelter during rainy season.

d) Porches of non cantilever type.

Areas which are not to include

a) Area of lofts.

b) Unenclosed balconies.

c) Architectural bands, cornices etc.,

d) Domes, towers projecting above terrace level.

e) Box louvers and vertical sunbreakers.

b) Cubical Contents Method: This method is generally used for multistoreyed buildings. It is more accurate that the other two methods viz., plinth area method and unit base method. The cost of a structure is calculated approximately as the total cubical contents (Volume of buildings) multiplied by Local Cubic Rate. The volume of building is obtained by Length x breadth x depth or height. The length and breadth are measured out to out of walls excluding the plinth off set.

The cost of string course, cornice, carbelling etc., is neglected.

The cost of building= volume of buildings x rate/ unit volume.