

Highlights

1. Use approximate estimates and detail the requirements, item wise and work wise, to calculate your budgetary requirements.
2. Calculate stage wise cost of construction to plan your financial requirements better.
3. Remember to personally examine the Terms & Conditions of the offer, before taking a home loan.
4. Assess present and future requirements of your family and plan your house accordingly.

Home Guide Series

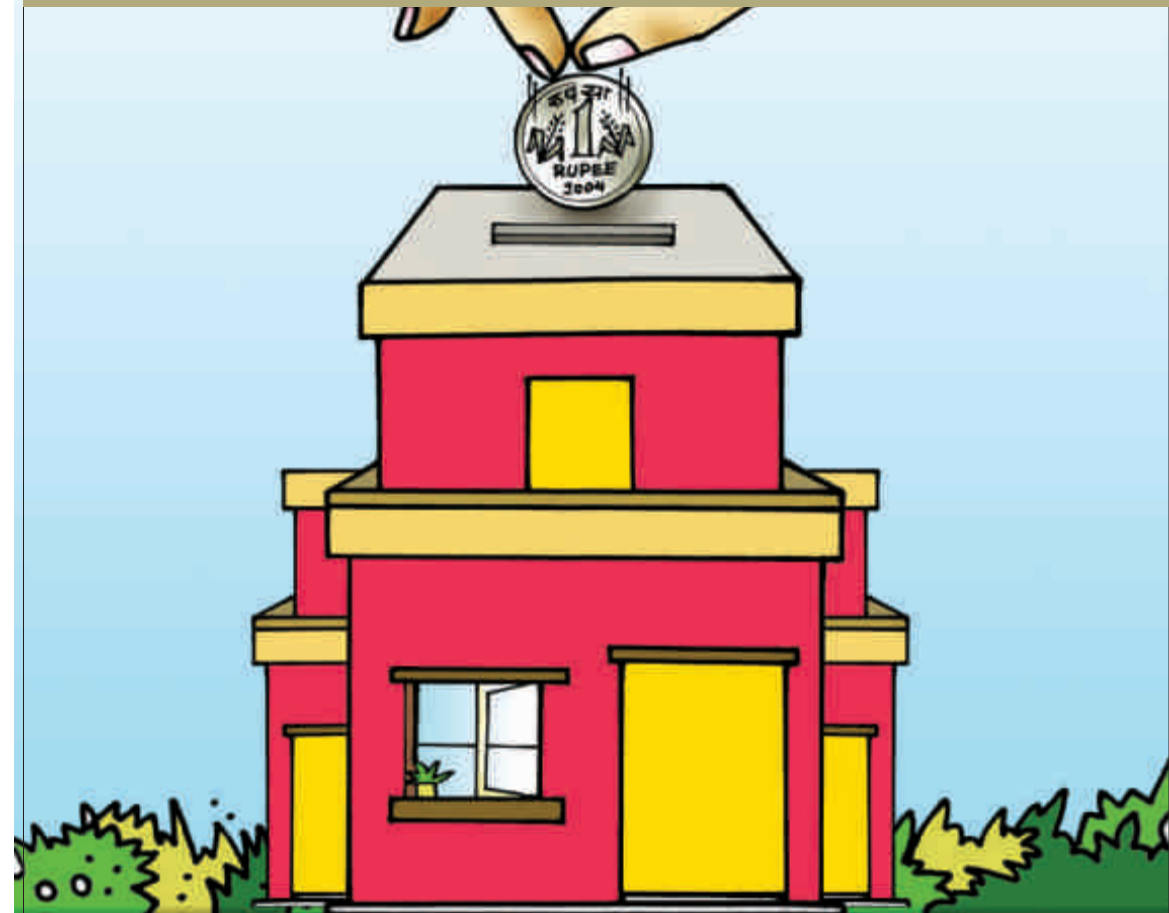
1. Pre-Planning Home Construction
2. Planning Construction Costs
3. Construction Materials And Their Characteristics
4. Good Construction Practices
5. Protecting And Beautifying Your Home
6. Essential Utilities For Your Home
7. Heat Insulation And Rainwater Harvesting
8. Ensuring That Your New Home Lasts For Generations

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Planning Construction Costs

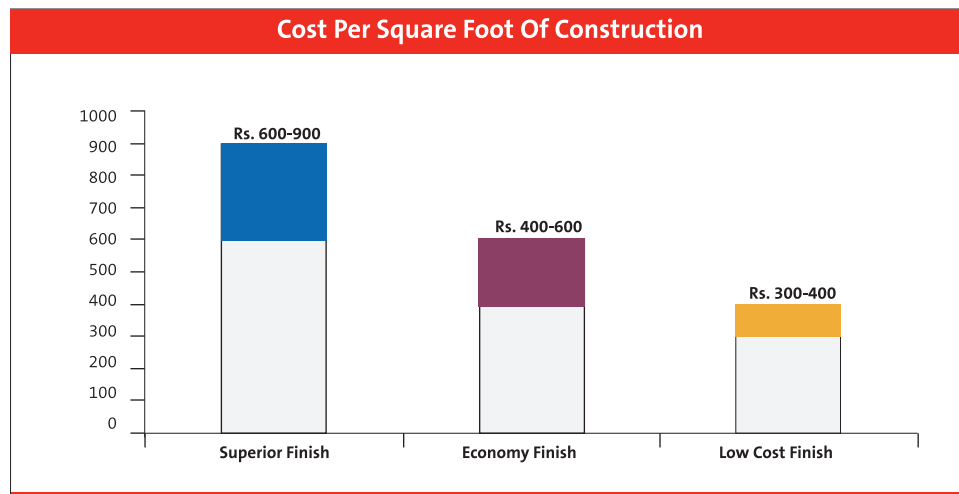


“You Can Organise Your Construction Costs Better, By Planning Your Expenditure In Advance.”

Budgeting & Estimation

To calculate your budgetary requirement initially, use tentative estimates and then detail the requirements, item wise and work wise. However, actual estimates will depend on the design proposed by the engineer / architect for your home and the prevailing cost of raw materials in the market.

Assume that you buy 1200 square feet of land at Rs. 250 square feet. The cost of land is $250 \times 1200 = \text{Rs. } 3 \text{ lacs}$. Consider that your house will have 200 square feet of open space and a total construction area of 1000 square feet. With the help of the chart given below you can categorize the cost of construction:



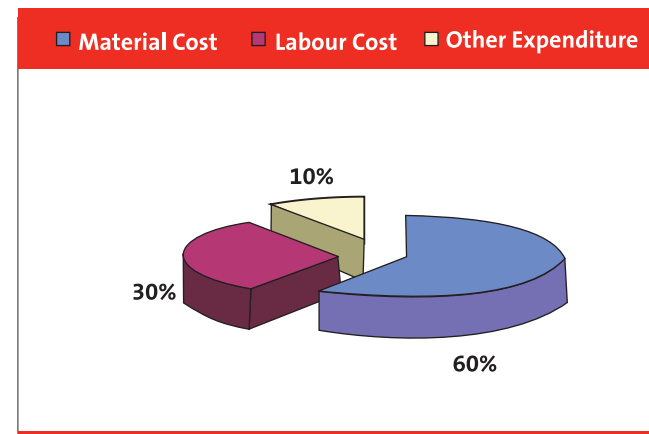
The chart provides you a tentative estimate for ground floor and duplex constructions. The finishes mentioned indicate types and quality of flooring, electrical works, sanitary & fittings, paints, timber, doors & windows, etc.

For instance, if you decide to build your house under the second category, the cost per square foot will vary from Rs. 400-600. Hence your total cost, including cost of land, will be Rs. 7-9 lacs. (However, for the sake of clarity we will take the cost of Economy Finish construction as Rs. 5 lacs, excluding the cost of land, for future calculations.)

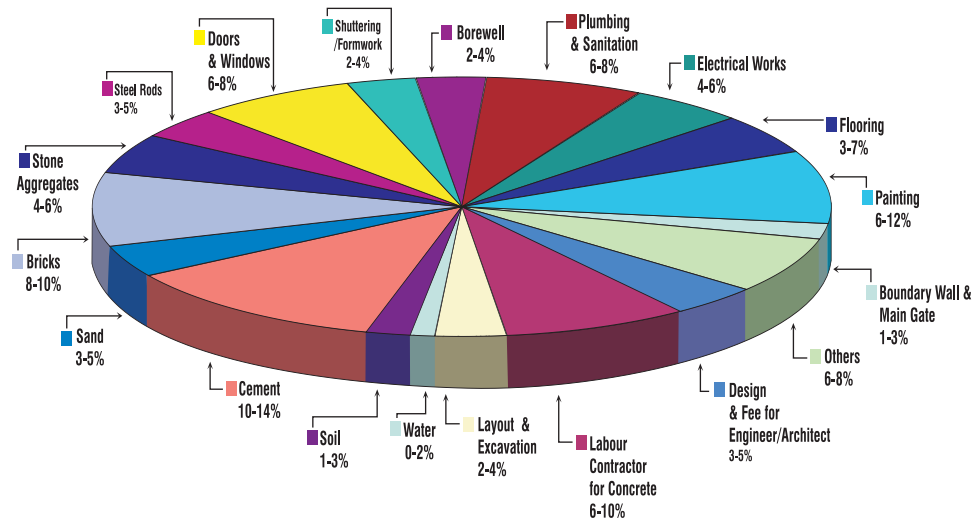
You can make provisions for financial requirements either from your savings or through home loans from banks and financial institutions. Please refer to the section on Home Loans for more information.

Estimating The Cost Of Construction

From the example given above, you can now distribute your construction cost. The standard ratio of material cost, labour cost and other expenditure is approximately 60:30:10. Therefore, you could incur Rs. 3 lacs on material, Rs. 1.5 lacs on labour and Rs. 50,000 on other expenditure. This excludes Rs. 3 lacs invested for purchase of the plot.



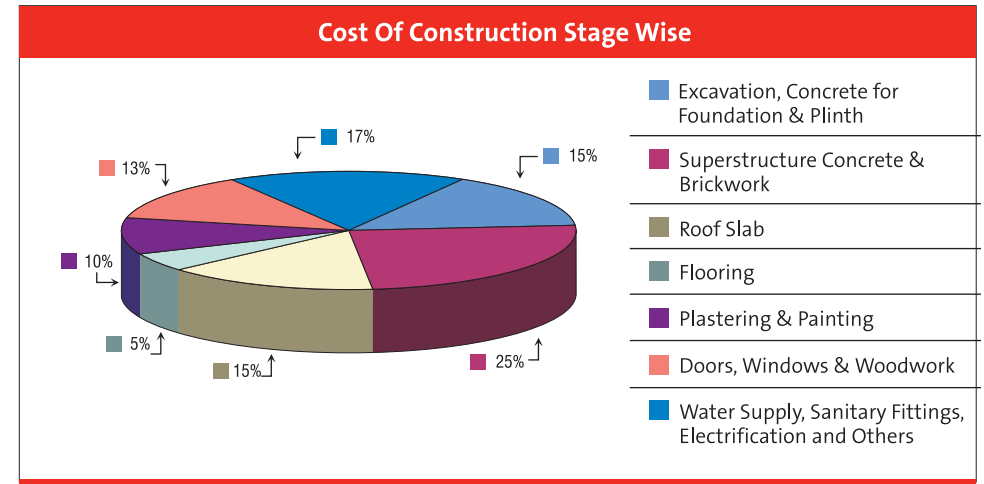
Approximate Cost Of Construction - Item Wise and Activity Wise



The chart given above will help you estimate the approximate cost of various works and items. For example, you can allocate 6-12 percent of your construction budget for painting. Assuming 9% for calculation purpose, you will incur a cost of $0.09 \times 5000000 = \text{Rs. } 45,000$.

Stage Wise Cost Of Construction

You can also find out the expenditure to be incurred stage wise. This can help you plan your financial requirement during the entire period of construction.



Planning Material Requirements For Each Job

Please plan your requirements for each job. You can use tables A-D for estimation purposes.

1) Slab casting (slab size 900 square feet, thickness 4")

Concrete ratio: 1:1.5:3

Now refer to Table A and calculate the required quantity of all the ingredients:

Material Requirement For 1 Cubic Metre Of Concrete

Table A					
Concrete Mix	Water & Cement Ratio	Water in litre per bag of Cement	Cement (Bags)	Sand (cubic metre)	Stone Aggregates (cubic metre)
1:1:2	0.35	17.5	11.2	0.4	0.8
1:1.5:3	0.42	21	8	0.42	0.83
1:2:4	0.55	27.5	6.2	0.43	0.87
1:3:6	0.75	37	4.4	0.45	0.9
1:4:8	0.95	47.5	3.3	0.46	0.93

Slab Work:

Concrete quantity = $900 \times 4 / 12$ cubic feet = 300 cubic feet = $300 / 35.3$ cubic metres = 8.5 cubic metres

Please refer to Table A and calculate the required quantity of all the ingredients:

Cement = 8.5×8 = 68 bags

Sand = 8.5×0.42 = 3.57 cubic metres

Gitti = 8.5×0.83 = 7.01 cubic metres

2) Brickwork (300 square feet, wall thickness is 8")

Mortar ratio: 1:6

Please refer to Table B to calculate the quantities

:

Material Requirement for 1 Cubic Metre of Brickwork

Table B		
Mortar	Cement (Bags)	Sand (cubic metre)
1:3	2.6	0.267
1:4	1.9	0.275
1:6	1.4	0.299
1:8	1.1	0.308

Note: Approximately 0.25 cubic metres of mortar and 500 bricks are required for 1 cubic metre of brickwork.

Brickwork:

Brickwork quantity = $300 \times 8 / 12$ cubic feet = 200 cubic feet = $200 / 35.3$ cubic metres = 5.67 cubic metres

For this, refer to Table B to calculate the quantities:

Cement = 5.67×1.4 = 8 bags

Sand = 5.67×0.299 = 1.7 cubic metres

Bricks = 5.67×500 = 2835 numbers

3) Plaster Work (200 square feet, ½ inch thickness)

Mortar ratio: 1:4:

Refer to Table C to calculate the quantity of construction materials:

Material Requirement for 100 square metre of Plaster of 12 mm (½ Inch) Thickness

Table C		
Mortar	Cement (Bags)	Sand (cubic metre)
1:2	21	1.4
1:3	15	1.5
1:4	12	1.6
1:6	9	1.8

Plaster Work:

½ inch thick plaster area = 200 square feet = $200 / 10.76$ square metres = 18.6 square metres

Referring to Table C,

Cement = $18.6 \times 12 / 100$ = 2.23 bags

Sand = $18.6 \times 1.6 / 100$ = 0.3 cubic metres

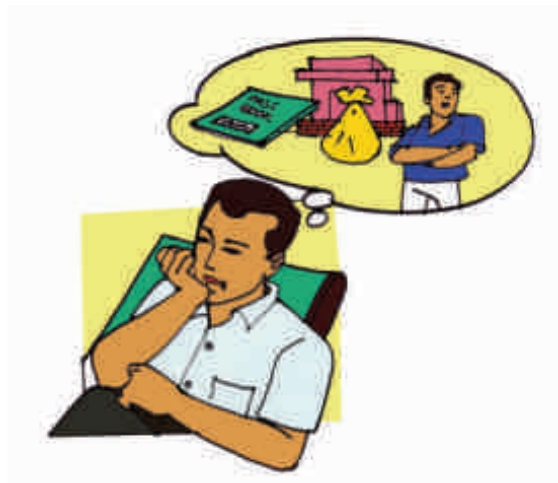
Remember to add 5 to 8% for wastage always.

Conversion Table

Table D
1 metre = 3.28 feet
1 square metre = 10.76 square feet
1 cubic metre = 35.3 cubic feet
12" = 1' (12 inch is equal to 1 foot)
1 metre (m) = 100 centimetres (cm) = 1000 millimetres

Getting The Best Out Of Your Home Loan

Applying for a Home Loan has never been easier! In the estimation section, you calculated the total amount you require for plot purchase & house construction. If you are approaching a bank / financial institution to meet your financial needs, remember to personally examine the Terms & Conditions of the offer/s, before taking the Home Loan.



Check your finance options

Helpful Tips:

- Plan the amount you want to borrow. You can borrow up to 80-85% of the total construction expenditure.
- Your monthly instalments will depend upon loan amount, total duration and interest rate. This means you have to pay a certain amount per Rs. 1 lac during the entire period. This is called Equated Monthly Instalments (EMI). The longer the repayment period, the smaller the EMI. Generally, the EMI should not exceed 50% of household income.

- You will be eligible for a tax rebate.
- Check the administrative and processing charges too, if any. Also, enquire about fixed & floating interest rates.
- Check for prepayment penalty, if you wish to repay the loan before the predefined period.
- Some institutions provide additional facilities like free accident insurance cover for house owner, insurance against fire, theft, etc. Avail these benefits after thoroughly analysing the terms & conditions.

Check Your EMI:

Evaluate the EMIs offered by various banks & financial institutions.

Banks/Financial Institutions	5 Years	10 Years	15 Years	20 Years
State Bank of India				
UTI Bank				
LIC				
HDFC Bank				
ICICI Bank				
Deewan Housing				
IDBI Bank				
Bank of India				
Other Banks/FIs				

Cost Control Measures

You can save considerably on construction expenses by taking a few cost control measures. Here are some cost effective and qualitative inputs to help you build your dream home.

Points To Remember

- Assess present and future requirements of your family and plan your house accordingly. You can construct the ground floor, and the 1st floor later according to the enhanced needs of your family members.
- Calculate approximate estimate of your budgetary requirements in terms of cost and quantity. Also, calculate stage wise cost to avoid any cost over-run while your project is at advanced stage.
- Ensure that the design of your proposed home is simple.
- Check and compare the cost of financing through a home loan with other available finance options.
- If all your pillar sizes are the same, you can economize on shuttering requirements.
- Evaluate the Terms & Conditions of payment to contractors, suppliers



and service providers. But, never compromise on quality. Quality pays more than you pay for it.

- Make use of locally available materials.
- Make adequate openings for ventilation and natural light.
- Do not hold large stocks of building materials at the construction site.
- Judicious choice of construction options i.e. ground floor or ground floor + 1st floor, along with future additions of rooms should be clearly communicated to the engineer / architect. This will ensure economies in plot selection and construction design.



Ground Floor Construction Only

Gr. Floor + First Floor Construction