

CHAPTER 1

Introduction



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Certain tools and materials are necessary for building. Knowledge of the names of these tools and materials, and how they should be used is a basic requirement for the amateur builder. In addition, you should know some builder's terms and certain proven methods of construction. We therefore start with these requirements of construction and then proceed to a description of the various steps in building, with suitable illustrations and photographs.

Important Notes

- Before starting, make sure you understand the plans and know what the house or structure will look like. If someone else has already built a house or structure to the plan you have chosen, have a good look at it.
- Compile a list of the building materials you will need for the job. Make sure they are all readily available and what it is going to cost you.
- See that you have all the tools you need and know how to use them. (See Chapter 2)
- Cement, timber for the roof, doors and windows and any other material made of wood must be kept under cover.
- Once you have started to build, complete the structure as soon as possible. Walls without a protective roof can be spoilt. Too much rain on the walls may cause white patches (efflorescence) to appear, which have to be removed before plastering. It is best to build in the dry season.

The Three Golden Rules

If you want your structure to be neat and well built, there are three rules you must remember. These rules are Square, Level and Plumb.

Rule One – Square

“Square” means that all the corners are at right angles. When you set out your house it is fairly easy to get the right measurements, but the most difficult / and most important thing is to get it “square”. If you study Chapter 5 carefully, you should be able to get your house square.

Rule Two – Level

“Level” means that a surface has no slope and is horizontal. The surface of standing water is level. It is important to keep the walls level. If the foundations are completely horizontal, it will be easier to keep the walls level.

Rule Three – Plumb

“Plumb” means that a surface is vertical, i.e. standing straight up and not leaning over. If the walls, doors and windows are not plumb, the structure will be spoilt. To keep a house level and plumb a spirit level is used. When building the corners of the walls level and plumb every course. Also level and

plumb the door and window frames. If the spirit level is too short to reach both points to be levelled, use a straight edge with the spirit level. (See Figure 5.14)

Municipal Building Plan Approvals

All building plans must receive approval from the local Municipality prior to commencing any building work on site. In many cases the Architectural Professional who draw up your plans is able to carry out this important step.



1.1 - Study the plans carefully



NOTE:

A projects success is derived from the quality of drawings produced by the Architectural Professional. Ensure all the information required to embark on the project is present. If any information is missing, insist the the missing information be provided to avoid any mishaps.

FBX

Face Brick Extra

Clay bricks that are selected or produced for their **durability** and **high degree** of

uniformity of size, shape and colour.

THE LANGUAGE OF CLAY BRICKS

FBS

Face Brick Standard

Clay bricks that are selected or produced for their **durability** and **uniformity of size and shape.**

FBA

Face Brick Aesthetic

Clay bricks that are selected or produced for their **durability** and **aesthetic** effect deriving from

non-uniformity of **size, shape and colour.**

NFX

Non-Facing Extra

Clay bricks suitable for use, **plastered or unplastered**, for **general building work below damp-proof course** or under

damp conditions or **below ground** level where **durability** rather than aesthetics is the criteria for selection.

NFP

Non-Facing Plastered

Clay bricks suitable for **general building work** that is to be **plastered.**

E

Engineering Units

Any class masonry unit produced for structural or load-bearing purposes in face or non-face work, where the manufacturer supplies

clay bricks to an agreed compressive strength. An engineering unit is designed by the addition of the letter E followed by a

number equal to the nominal compressive strength in megapascals, e.g. FBSE21

PA

PA Clay Pavers

Clay pavers that are selected or produced for their durability and for a high degree of uniformity in size and shape, and that have

dimensions such that the ratio of work size length to work size width is approximately 1:1, 2:1 or 3:1.

PB

PB Clay Pavers

Clay pavers that are selected or produced for their durability and for their uniformity in size and shape.

