CHAPTER 1

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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.
THE LANGUAGE OF CLAY BRICKS

FBX  
Face Brick Extra  
Clay bricks that are selected or produced for their durability and high degree of uniformity of size, shape and colour.

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.