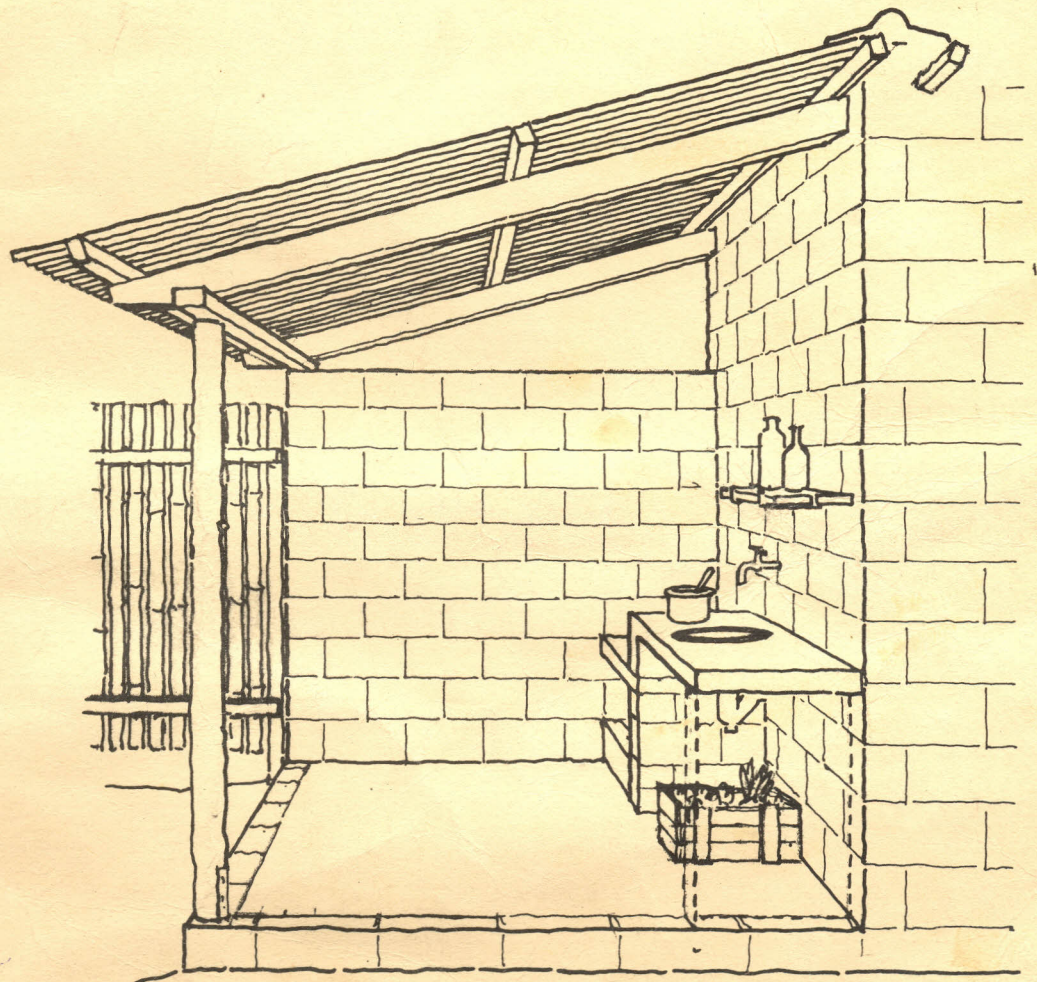


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Guidelines for Room Types in Low-cost Housing

With reference to the highland climatic region





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GUIDELINES FOR ROOM TYPES IN LOW-COST HOUSING
with reference to the highland climatic region

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TABLE OF CONTENTS

	page
1. Introduction.....	1
2. The habitable room.....	3
3. The kitchen.....	7
4. The sanitary unit.....	11
5. The store.....	13
6. The verandah.....	14
7. The enclosed outdoor area.....	15
Appendix.....	17
References.....	19

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1. INTRODUCTION

It is the aim of this paper to provide guidelines on space requirements for various room types for urban low-cost housing. Many of the guidelines suggested will also be applicable for rural housing, whether constructed in traditional ways or by industrialized methods.

The guidelines are meant for the following users: house designers, building contractors, technical staff of local councils, teachers at polytechnic schools (including village polytechnics) and for application to aided self-help schemes.

background

Housing shortage is endemic within the urban low-income sector. This leads to:

- rooms being sublet at the rate of one household per habitable room;
- overcrowding of the individual rooms;
- stress on service facilities like toilets, showers and kitchens;
- circulation and access problems;
- lack of privacy;

Space requirements as laid down in the Building Code are based on the assumption that each multi-roomed dwelling will be occupied by one household only. Designing strictly in accordance with the Building Code's requirements does not therefore take the real problem of overcrowding into consideration. Sizes and configuration of rooms should be based on functional requirements and economical limitations rather than solely on the Building Code's wording.

cost framework

As mentioned above these guidelines are meant for the design of urban low-cost housing, which according to the Ministry of Housing and Social Services definition, means those categories of housing costing not more than Kshs 24.000/- per unit catering for the income groups earning not more than Kshs 800/- per month.

It should be noted that with the present escalation in building costs Kshs 24.000/- is insufficient to provide a contractor built unit consisting of a kitchen, sanitary unit and two habitable rooms. As a consequence of the increasing demand for housing within the lowest income groups the bulk of Government funds for this Development Plan period is allocated to site and service, self-help schemes at an average of Kshs 10.600/- per plot unit at 1974 prices.

scope

The following room types are dealt with: the habitable room, kitchen, shower, toilet and store. Furthermore the verandah and the enclosed outdoor spaces next to the houses have been considered as room types due to their specific functions within the lowest cost categories of housing.

The suggested room types have been examined for their performance under different conditions ranging from conventional use to situations of multiple use. The climatic design aspects have also been considered.

legal framework

The guidelines are geared towards the Grade II By-Laws of the Kenya Building Code which, it should be noted, are a legal instrument in themselves and therefore not subject to be subjugated or superseded by other sections of the Building Code. It should also be noted that according to the Public Health Act, health aspects related to house design shall be satisfactory to the local Medical Officer of Health or the local Health Inspector.

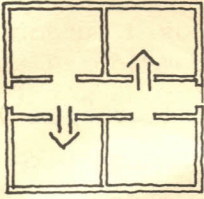
The main health aspects are: provision of adequate sanitary facilities in relation to the number of habitable rooms and provision of adequate ventilation in the rooms.

room type definitions

In the Building Code the various room types are defined as follows:

- "habitable room" means a room used or intended to be used for the purpose of working, living or sleeping, other than kitchen, or laundry room for the sole use of the occupants of the dwelling to which it is attached;
- "kitchen" means a room designed, adapted or used solely for the purpose of preparing or cooking food and washing utensils;
- "latrine" means a receptacle or receptacles for faecal matter, together with the structure containing such receptacle and the fittings and apparatus connected therewith:

2. THE HABITABLE ROOM.



The habitable rooms, i.e. the living room and the bedroom, within the lowest categories differ from the ones in other categories of housing in terms of multi-use. Often all family activities, like preparation of food, eating, social life, childrens play, housework and sleeping have to be accommodated within the same room.

Design Criteria.

The following should be considered in the planning of the habitable room:

-dimensions should be related to bedspaces of 1 x 2 m, to allow for an optimum number of beds under minimum conditions.

-the area should preferably be between 9 - 12 m², considering a likely initial occupancy rate of one household per room.

-access should be from: a corridor, an enclosed outdoor area (e.g. a courtyard) or via only one other habitable room.

-openings should be spaced in a way which ensures the best use of the room by not having areas difficult to furnish or poorly lit. Openings should be provided with burglar proofing.

-window openings should be placed in the north and south elevation.

-external doors should be placed in the north and south elevation.

-internal doors should be located to allow for cross ventilation.

-living rooms should face to the north as during the cold season the sun is in the northern hemisphere.

-window openings; when cill heights exceed 1000 mm additional vent openings should be placed at a lower level in the external walls.

climatic aspects

legal requirements

The following requirements refer to the Grade II By-laws:

a) minimum floor area 7 m² (75 sq. ft.)

b) one habitable room of each dwelling should at least be 11.20 m² (120 sq. ft.)

c) minimum area per person: 3.72 m² (40 sq. ft.)

d) minimum heights, when ceiling is provided: wall height 2.135 m (7' -0"), average room height 2.360 m (7' -9").