Assessment of the Impact of Contraventions of Building Regulations on the Architecture of Mixed Landuse Areas of Kano Metropolis, Nigeria (1990-2009)

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February, 2013

DECLARATION

I declare that the work in this dissertation entitled "***Assessment of the Impact of Contraventions of Building Regulations on the Architecture of Mixed Land Use Areas of Kano Metropolis Nigeria,(1990-2009)***" has been performed by me in the Department of Architecture, Ahmadu Bello University Zaria, under the supervisors, Dr. J.O. Popoola, Prof. J.B Kaltho and Prof. W.B Qurix. The information derived from the literature has been duly acknowledged in the text and list of reference provided. No part of this dissertation was previously presented for another degree or diploma in any University.

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Name of Student	Signature	Date

CERTIFICATION

This dissertation entitled "*Assessment of the Impact of Contraventions of Building Regulations on the Architecture of Mixed Land Use Areas of Kano Metropolis,Nigeria (1990-2009)"* by Sani Khalil Ibrahim meets the regulation governing the Award of Doctor of Philosophy of Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

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ABSTRACT

The orderly growth of cities involves the design and construction of buildings for various purposes such as residential, commercial and industrial. This calls for development control regulations which include land use and building regulations. The study was set out to identify the nature of contraventions of the regulations in the selected districts of Kano metropolis. Secondly the study is to assess the impact of the contraventions on Architecture and facilities in the mixed land use areas. The pilot study, using Archival (archives of planning Authority) method, confirmed existence of contraventions of 75.26% reported cases within 20 year period (1990 – 2009). Furthermore, for the main study, questionnaires were employed and three groups considered; that is the occupants/owners, principal officers of the Planning Agency and consultants submitting building drawings for approval. Statistical Package for Social Sciences (SPSS) software was used to analyze the findings of the questionnaire. The identified contraventions were; set back (25%), land use not in conformity (12.4%), building without approval (13.4%), plot development ratio (11%) and insufficient parking space (8%). The study confirmed the existence of contraventions of building regulations in mixed land use areas of Kano metropolis where impact on Architecture and facilities was availed through detailed study of 22 defaulters. Reasons adduced for contraventions were lack of enforcement of the regulations (18.1%); cumbersome process of obtaining approval (7%), lack of awareness of building regulations (11.2%), lack of publicity and absence of monitoring unit (6.2%) and rapid growth of population which resulted in increase in need of building developments (7%). These resulted in construction of substandard structures (impact on architecture) as buildings without approval accounted for 100%, defaulters on set back 86.4%, development ratio (overdevelopment) 59.1%, ventilation and privacy due to buildings without proper set back accounting for 77.3% and 45.5% respectively, and room sizes below approved standard is 18.2% while impact on infrastructure which relates the inadequate parking spaces accounting for 59.1%, services 50% and unilateral changes of purpose from approved purpose as per certificate of occupancy accounted for 31.8%. It is recommended that building regulations should be enforced so as to reduce the negative impact of contraventions, through improved architectural practice within the ambit of the law as regulated by Architects Registration Council of Nigeria. Awareness campaign by the government in promoting adequate respect to the professional practices and compliance with use of professionals in all physical developmental programmes. The process of building plan approval needs to be simplified while the Agency responsible for building plan approval should promote what is enshrined in the building regulation, and the National Building Code of 2006. The study is on Kano metropolis planned areas where building regulations are applicable and about 10 locations where selected based on the fact that they are planned areas with implemented layouts. On the other hand; the areas of further research could be on standard or building regulation to respect the socio – cultural values of the people, the concept of building regulations reducing or otherwise contraventions of building approval plans and reassessment of the tools of development control activities in planned areas.

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

As cities grow due to population increase (Mobogunje, 1968) one of the resultant effects is the demand for buildings for various activities. Some measures of control for such developments are needed (Bashorun, 2003). This informed the physical development control measures such as urban landuse, zoning and building regulations (Uloko and Agbonoga, 2005).

Buildings provided in accordance with identified landuse makes architecture the core component of urban landuse. Building Regulations and Bye-laws are provided to guide building development. They are provided for the purposes of standards, safety, security etc (Baden-Powell, 2008) and above all for control of physical development activities in a balanced way (Popoola, 2002). However, observations have shown that as building plan approvals are obtained as a prerequisite to commencement of physical development, it is not strictly observed during construction and post construction stages. The question that readily comes to mind is where does the problem emanate from? Is it from the implementing authorities or implementation of the approved building designs? And it should be noted that lack of control of physical development of the environment simply results into, as opined by Popoola (2002), in disorderly development, incompatible landuse, and inadequate access to various landuses and inadequate provision of amenities. This has had negative effect on architecture (building design approval) infrastructure and facilities within such environment.

1.2 JUSTIFICATION OF THE STUDY

Emphasis of research by Urban Planners on the enforcement outcomes of Development Control guidelines have left a big vacuum regarding the Architectural influence associated with the practice and results. Inroads by Architects though institutional and Academic research has not been promoted in comparison to Urban Planners where studies had covered effectiveness (Hassan, 1986), Enforcement in mixed landuse developments (Oladunjoye, 1990), problems of enforcement (Plangshak, 1995), Violation pattern (Batesha, 2009) and the challenges of enforcement and the challenges of enforcement based on National and Building Code (Augustine, 2009), and so on. The study will provide valuable lesson to enhance the outcomes of Development Control activities of Urban Boards more especially in respect of Kano Metropolis.

1.3 STATEMENT OF RESEARCH PROBLEM

Development Control activity has scope covering Urban Planning, Architecture and Engineering issues, but the thrust of enforcement and the concerns for outcomes are lopsided towards planning consideration.

This is regarding the lead roles for approvals, interpretations for what constitutes contraventions and the procedures and rules governing enforcement. The practice also extends to Academic and Institutional research which have been dominated by concerns on Urban Planning issues and the associated outcomes of contraventions. As a departure from the norm therefore, this study seek to establish from the Architectural point of view, the degree of contraventions and reason for non – compliance to Architectural building regulations that make – up the Development Control guidelines. The second is the analysis of the consequences of non – compliance with the regulations and third, the analysis of impact of the non – compliance on architecture/environment, Urban Design, there issues are

examined in the mixed landuse areas of Kano metropolis. The building regulations component of Development Control guidelines is the aspect of concern that justifies greater participation of Architects in influencing the outcomes of development control and evaluation of their enforcements.

1.4 RESEARCH QUESTIONS AND HYPOTHESIS

In the planned areas of Kano Metropolis, the building plans approved for development by the Development Control Authorities are not observed during the development process. The study intends to find out the root cause for non-compliance from five angles, which include the architectural design process, the process of building plan approvals, the workings of building regulations, the present attitude of developers and the impact of contraventions of approved building plans in terms of the architecture, the occupants and the city's infrastructure. There are two basic questions. There are two basic questions which are

a) What are the reason to contraventions of approved building plans?

It could be as a result of the following;

i) Design process of the architectural building plans?

ii) Zoning regulations which do not take the need and requirement of the people into account?

iii) Problem of Building Plan Approval procedure?

iv) Lack of enforcement of the offenders?

v) Laws are not enforceable and thereby neglected by all?

vi) Resultant effect of contravention not appreciated.

(b) What is the impact of contraventions of building plan approval on the architecture, occupant, infrastructure and services?

1.5 AIM AND OBJECTIVES

a) Aim

The study is to identify contraventions of Building regulations in the mixed landuse areas of Kano Metropolis and assess in their impact on the Architecture, infrastructure and Occupants with a goal of proposing the strategy that will reduce contraventions to a minimum.

b) Objectives

The objectives of the study are;

i) To document the degree of contraventions of development control regulations.

ii) To investigate the degree of non-compliance with the building plan approved with particular reference to Kano Metropolitan planned areas.

iii) To assess the impact of non-compliance on architecture of the environment.

iv) To determine what control measures, can be put in place to percent future re – occurrence.

1.6 DELIMITATION OF THE STUDY AREA

In order to have clear focus of this study, it is paramount to have a delimitation of the study area.

Kano is among the 36 states including FCT in Nigeria (fig. 1.1) while it has 44 local government areas (fig. 1.2)

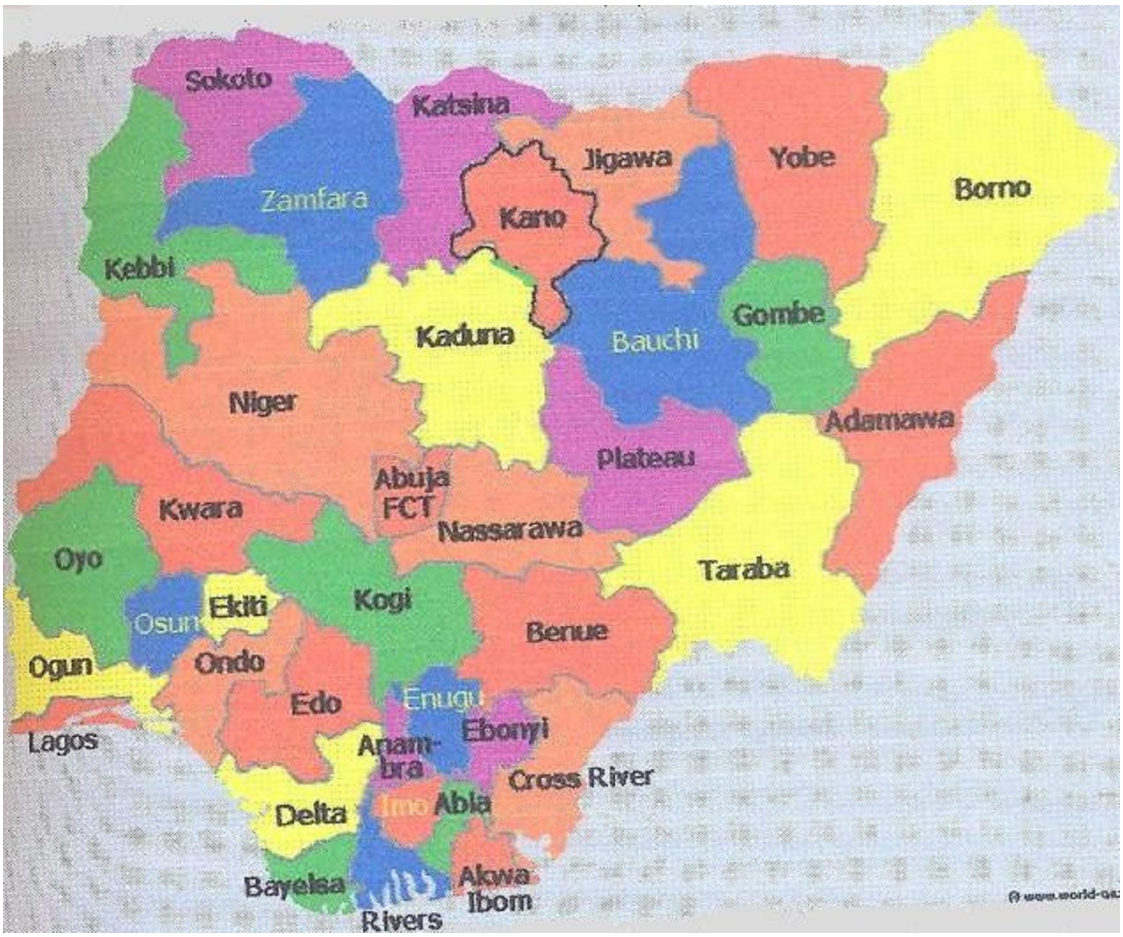


Fig. 1.1 Nigeria: 36 States and FCT
Source: Ministry of Land and Physical Planning Kano State



Fig.1. 2 Kano State 44 LGA's.
Source: Ministry of Land and Physical Planning Kano State

1.6.1 Why the selection of Kano Metropolis

In order to respond to the reasons for the choice of Kano Metropolis, some background information is needed to elucidate reasons for the choice. Documentation of planning regulations in Nigeria is an important parameter to guide in the choice of the study area and takes into cognizance of contraventions of approved building drawings.

Other parameters to be considered are:

(i) Length of use of Building Regulation. (BR).

(ii) Fast growth of building development.

(iii) Population (About 10m, based on National Census 2009).

Indeed consideration is given to choice of Lagos, Abuja and Kano.

S/No	Area	Parameters		
		Length of use of BR	Growth of building Devt.	Population (2009)
1	Lagos	Since 1956	Fast growing	About 10m
2	Abuja	Since 1990	Fast growing	About 3m
3	Kano	Since 1986	Fast growing	Over 10m

Table 1.0 Parameters of choice of areas

Also, consideration was given to political location of the considered areas where the Regional Headquarters during colonial period where, Lagos, Ibadan, Benin, Enugu, Kano, Sokoto, Maiduguri and Port Harcourt.

Similarly, Abuja as the Nation's headquarters should be considered.

Therefore based on table 1.0 provided, Kano occupies a stronger position in terms of fast growing city and has largest population. This guides the choice of Kano.

1.6.2 Areas covered in Kano metropolis for the study

In Kano Metropolis, there are three basic planning areas to be considered in this study. The first is the traditional walled city that was not subjected to Development Control activity. The second is the unplanned areas usually at the periphery of the city wall, along major roads going out of the Kano and small villages where the metropolitan growth has enveloped. They are by and large without any layout or zoning and lack urban facilities while some of them may be referred to as slums.

The third category is the planned area that is covered by landuse and zoning regulations. Any development in the planned area must be approved through submission of building plans to the approving authority.

The field study focused on the planned areas, where cluster sampling was employed and in order to achieve same it will take cognizance distribution of population (Asika, 2004). Then random sampling was used to select sample subjects. The identified areas were Kofar Ruwa, Gwammaja, Goron Dutse, Kofar Dawanau and Kansakali layouts, while to the South; Naibawa, Unguwa Uku, Yar-akwa, Babban Giji, Tudun Maliki and Dangwauro. to the East; Kawaji, Dakata, Badawa, Giginyu, Kawo, Tokarawa and Hotoro were covered and to the West; Dorayi Babba, Rijiyar Zaki, Kabuga, Godon Kaya, Tudun Yola, Danbare and Janguza. The Central Business District (CBD) has Sabon Gari, Normans land, Fagge Takudu and Bompai areas were included during the selection process.

The characteristics of the areas are:- they are all planned areas, the layouts have been implemented and building development was going on.

The subjects selected were done randomly which are: Sabon Gari, Murtala Muhammad Way, Nassarawa and Ibrahim Taiwo Road. Others are Dorayi Babba, Sharada, Zoo road, Naibawa, Hotoro G.R.A and Kofar Ruwa.

TABLE 1.1: PLANNED AREAS OF KANO METROPOLIS.

S/NO	AREAS	DETAIL COMPOSITION OF AREAS	CHOOSEN AREA	LAND USE	INCOME LEVEL
1.	Sabon Gari	Sabon Gari, Noman's-Land	Sabon Gari	Commercial	High
2.	Bompai	Bompai, Murtala Muhd Way	MM Way	Commercial	High
3.	Nassarawa	Nassarawa G.R.A, Badawa,	Nassarawa	Residential	High
4.	Fagge	Kawo	Ibrahim Taiwo Rd	Commercial	High
5.	Gwarzo Road	Fagge ta Kudu, Ibrahim Taiwo	Dorayi Babba	RES/COM	High/middle
6.	Sharada	Rd	Sharada	RES/COM	High/middle
7.	Gyadi Gyadi	Dorayi Babba, Rajiyar Zaki	Zoo road	RES/COM	High/middle
8.	Naibawa/Zaria Rd	Sharada, Yahaya Gusau, Jaen	Naibawa	RES/COM	Middle
9.	Hotoro	Hausawa, Zoo Road, Tukuntawa,	Hotoro G.R.A	RES/COM	High/middle
10.	Kofar Ruwa	Darmanawa, Naibawa, Zaria	Kofar Ruwa	RES/COM	High/middle
		Road			
		Hotoro G.R.A Hotoron Arewa			
		Kofar Ruwa, Gwammaja,			

Source: Field Work 2012

The identification of these areas is based on the fact that they were planned areas hence subject to development control and these areas have implemented layouts. Most of the plots in the layout are almost fully developed hence conformity or non-conformity otherwise referred to as contraventions of building plan approval can be properly evaluated.

As these areas have been identified, a number of layouts were selected based on the above mentioned criteria in order to carry out assessment of contraventions for this study.

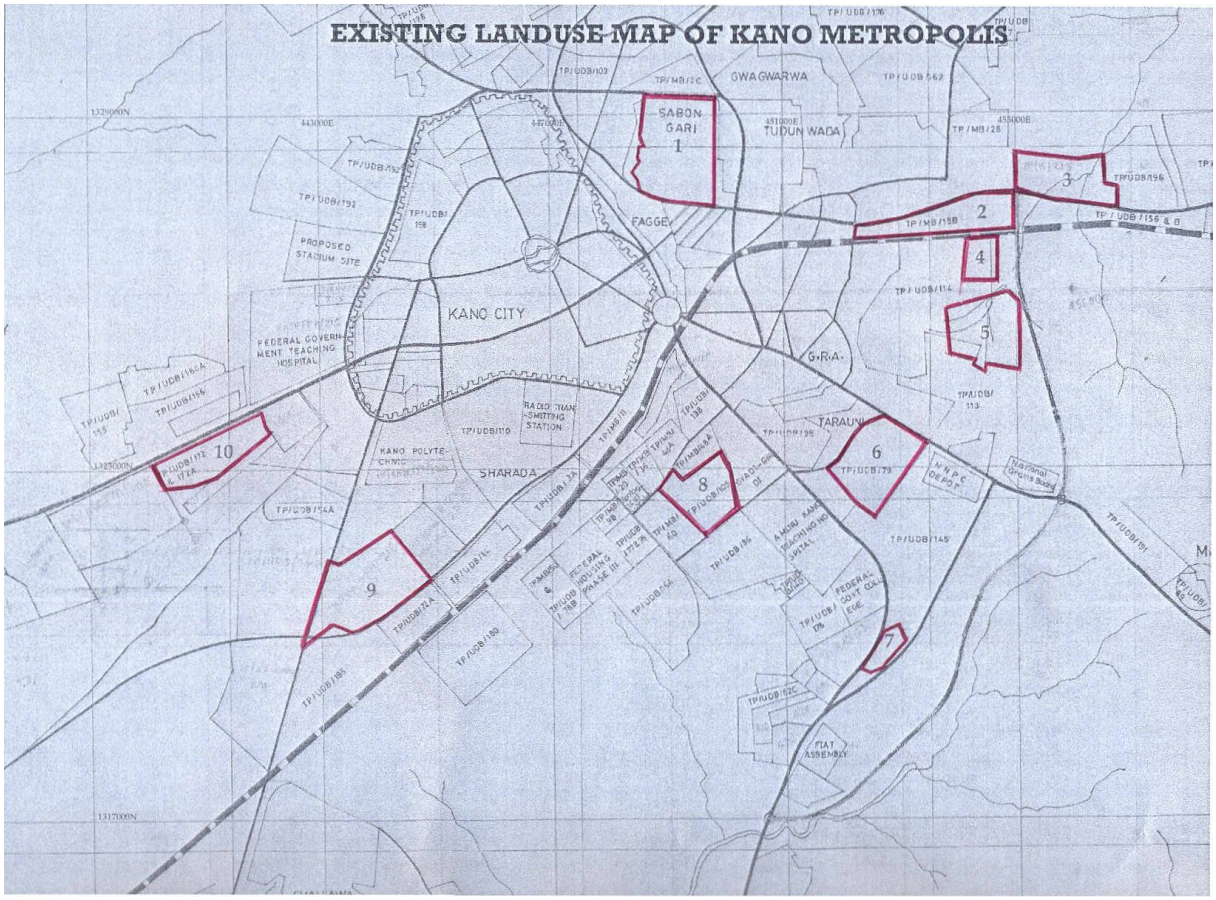


Fig 1.3 Existing Land use Map of Kano Metropolis Showing selected Areas.

iii. **The Selection of Pilot Study Area**

As consideration was given to choice of study area, justification was indeed needed for the site to use or rather where pilot study was conducted to test tools to be used for this research. The site is Sabon Gari layout. The factors considered were:

i) One of the oldest layouts in Kano.

ii) Has combination of residential, commercial and heavy commercial or rather small scale industries.

i) Its almost fully developed, now in its second phase of re-development.

ii) Ownership documents are generally not statutory but policy to charge has been in place for over fifteen years.

1.7 SIGNIFICANCE OF THE STUDY

The study is meant to identify and evaluate the sources of practical problem of most Urban Centers in Nigeria which is in contravention of Building Regulations.

It has been observed that a contravention of approved building plans is a rare occurrence in Developed Countries, while it is an everyday occurrence in Nigeria. Indeed this is one of the reasons for collapsed buildings in Nigeria. Re identification of the root causes for contraventions will go along way in helping to reduce or eliminate the problem.

CHAPTER TWO

LITERATURE REVIEW

2.1 CAUSES OF CONTRAVENTION OF BUILDING PLAN APPROVAL IN NIGERIA

As building plans are approved for the purpose of construction to provide for a proposed usage, contraventions are usually identified and are determined by various causes such as non – compliance by the authorities concerned in terms of Approval procedure, flouting the laws regulating such approval, non – conformity with design process by developers on architectural structural, mechanical and electrical engineering drawing, and the attitude of developers and users.

2.2 PROCESS OF DESIGN

This is the sum/total of all activities needed to be harmonized in order to bring up an acceptable design for a client. It has to recognize the client's brief, size of the land, encumbrances, design requirements and standards, and Building Plan Approval standard.
It is important to note that "the authority to give permission for development in Nigeria is vested on three levels of government based on who has the control over development" (Popoola, 2002). At the Federal Level is the commission, the Board at State level, and Authority at Local Government level.

The goal of processing and granting permission for development is to ensure adequate control over the use of land through safe structures, proper sanitary condition, adequate amenities and conveniences whether in Urban or Rural environment.

2.2.1 Design Requirements by Development Control Agencies in Nigeria

"Based on the existing legal tenets, permission for development must be sought by all developers through application and submission of relevant documents to

the relevant Development Control Department" (Popoola, 2002) and includes the following:

i. Application for development permits using necessary forms and providing such information required.
ii. Building plans, prepared by registered professionals to prescribed scales.
iii. Evidence of ownership documents of the land.
iv. Submission of development plan or site plan.
v. Detailed Environmental Impact Assessment report in tune with proposed development and
vi. Payment of such fees or other charges imposed by the Development Control Department.

It is important to note that the 1992 planning law provides that Government and its agency are not exempted from obtaining permission from the relevant Development Control Department before embarking on land development.

However, the decision of the Development Control Unit on an application for development permit should be communicated to the applicant in writing either approved or not, while reasons for non-approval will have to be stated and communicated (Uloko and Agbonoga, 2005).

Further, if permission is granted for development, the Development Control Unit is mandated to enforce all rights and duties attached to such permit while validity for such permit is two years (Popoola, 2002).

It is worthy of note, that the planning laws of 1992 provided the following as basis for rejection of an application.

i. Plan submission not in accordance with approved physical development plan.

ii. Development likely to have major negative impact on the environment, facilities or inhabitants of the community.

iii. Development may constitute a nuisance to the inhabitants of the community and

iv. Development not in accordance with any other conditions as may be specified.

However, monitoring of development is also the responsibility of Development Control Unit and if contravention is detected in the course of such monitoring on any site, sanctions would be applied as stipulated by the Edict of the Agency, while "in case of dispute between Development Control Unit and a Developer, the 1992 Planning Law allows for establishment of an Urban and Regional Planning Tribunal at the State only" (Popoola, 2002) such Tribunal is to be made-up of professionals in the building industry.

In order to provide a clear picture of design requirements in Nigeria, based on local guidelines, consideration is given to Lagos, Kaduna and Abuja as highlighted earlier.

I. The Lagos State Town and Country Planning Law cap 133 (Building Plans) Regulations 1981 and amended 1982 provided relevant conditions for acceptance, processing and Approval for Building Plans under Development Control Division of Lagos State Town and Country Planning Authority. It should be noted that review of the building regulations is almost at conclusive stage.

The Design Requirement in Lagos State are as follows:

i) Layout or site location plans showing streets leading to and around the subject site at scale 1:500 or 1:1000;

ii) A block plan showing a "bird's eye-view" of site and the proposed building;

iii) Floor plans of each floor and elevations showing necessary details;

iv) Cross and longitudinal sectional drawings;

v) 5 sets of structural drawings or details with calculations prepared by qualified professionals;

vi) All application are to be submitted to the zonal office of jurisdiction

II. Kaduna State: The Kaduna State Urban Planning and Development Authority (KSUPDA) edict of 1985 and amended in 1992 (Uloko and Agbonoga, 2005) and with recent, Town and Country Planning (building plan) procedure and Regulations, 2005 highlighted on the set-up of the Agency including issues of Design Requirements such as:

i) Size of sheet to be submitted must be A3;

ii) Scales of drawing details should be minimum of 1:500, 1:1000 for location or layout plan and 1:100 or 1:200 for block plan (site plan). While plans, section, elevations for architectural, structural, sanitary and planning, electrical and mechanical be 1:100 or 1:200. other details should be 1:50, 1:20, 1:10, 1:5, 1:2 and 1:1.

iii) Five sets of Architectural, structural (with calculations), are required and prepared by qualified professional.

iv) Set-backs: to boundary wall 1.8m – 3.5m depending upon type of plot size.

v) Plot development coverage ranges from 33% residential to 50% commercial.

III. The Federal Capital Development Authority, based on 1992 planning laws, produced documents to guide development within Federal Capital Territory, referred on Development Control Regulation 1996 and later reviewed as Abuja Development Control Manual, 2007. This document has extensively discussed and provided detailed parameters of development guide in Abuja. The document is divided into three parts with first part as policy guidelines with sections on environment, housing,

traffic and transport, commercial development, community development, out door installation and physically challenged. While part 2 focused on land and development permit with sections such as regulations, standards, guidelines, out door advertisement and telecommunication masts/towers. Similarly, part 3 focused on investors guide.

In consideration of the foregoing, part 2 of the document (Abuja Development Control Manual, 2007) is relevant to this discussion where the following design regulations have been highlighted:

i) Copies of site plan at scale 1:200, 1:250, 1:500 or 1:1000 (depending on the scale of the project, showing layouts of buildings, and other infrastructure).

ii) Architectural Design Scale of 1:500, 1:100 or 1:200 showing details of each or all buildings and duly endorsed by a registered Architect.

iii) Copies of each Engineering drawings (Civil/structural, Mechanical and Mechanical and Electrical) of 1:50, 1:100 or 1:200.

iv) Three sets of hard copy and one soft copy of architectural, civil/structural and mechanical and electrical drawing which must be endorsed by relevant registered professional.

2.2.2 Design Requirements in Britain

In Britain, the Design requirements are clearly spelt out in the Building Regulations 2000 which is under statutory instrument 2000, no. 2531 (Crown Copyright, 2000) and takes care of England and Wales. Importance of relating the Design Requirements in Britain with what subsists in Nigeria is for a singular reason that Britain once colonized Nigeria where the planning laws in the former was fashioned out of English Town and Country Planning Act of 1932.

This Building Regulation 2000, was arranged into six parts which included General Control of Building, Wall, Exemption of Public Bodies from procedural Requirements, Relaxation of Requirement. Other parts are Notices and plans and miscellaneous. These parts are followed by schedules dealing with issues such as Requirements, Exempt Buildings and Work and Revocation of Regulations. Part five of the Building Regulation is more relevant to the discussion and it deals with notice and plans.

Among the requirements are:

1) Giving of building notice or deposit of plans – such a notice will carry the relevant use and deposit full plans with the local authority;
2) Full scale architectural plans in 1:250 scale;
3) Position of building (proposed) or extension with others and their boundaries;
4) Completion certificate is issued by the Local Authority after ascertaining relevant requirements have been complied with.

These requirements are simply summary of what are needed as design requirements in Britain which include Wales.

2.2.3 Design Requirements in the United States America

In the Untied States of America, the design requirements vary from one State to the other because the Federal Government simply provides General guidelines for the States. This makes it different from that of Britain where such laws are applicable throughout United Kingdom except Scotland.

In this respect, a choice of New York State is made because of its size in terms of physical development.

The Department of Buildings in New York City has requirements for applications and permits (www/nyc.gov/html/dob/html/ application and permits on 5/12/2008). The law in

New York requires that one or more permits must be obtained before starting any construction work (NYC Building Code 27 – 126).

Among the Design Requirements are:

1) Zoning which determines height, set-back and permitted use, must be respected.
2) Egress must be in compliance with Building Code.
3) Fire protection and Energy must be in compliance with the Building Code.
4) Energy calculations must be provided as part and parcel of the design.
5) Asbestos form must be filled by applicant to show for compliance of non-usage.

2.2.4 Comparative Analyses of Design Requirements in Nigeria, Britain and United States of America

In order to make proper comparative analysis which is based on the previous discussion, the Nigeria's case will be analysed based on documentation of Lagos, Kaduna and Federal Capital Development Authority. The summary of these states will culminate into Nigeria's case (Part I) which will be compared and analysed with that of Britain and United States of America (Part II).

The analysis of the design requirement needed such as set-backs, development ratio, site layout etc. are as follows:

i. **Part I:** In Lagos, the design requirements are layout or locational plan (1:500 or 1:1000), floor plans, sections, elevations details and set-backs (front-6m, back -3m, Left and Right sides -3m). While in the Federal Capital Development Authority, the design requirements are detailed site plan (1:500), development ratio for residential (max. 40%) and commercial (max. between 30% - 40%), set backs of proposed development (frontage 6m, right and left sides -3m and back -3). Similarly, that of Kaduna State

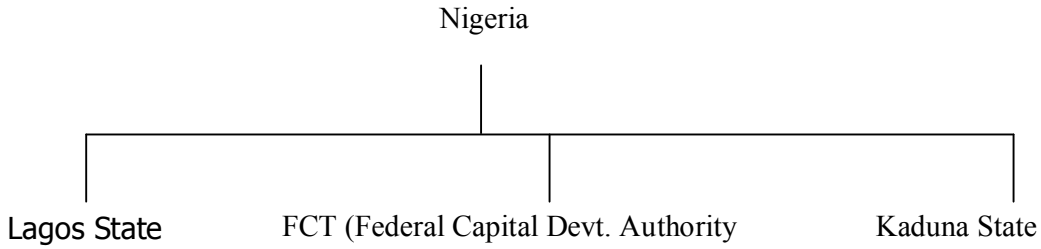
design requirements) are site layout (1:500 or 1:200), drawing details, location of refuse collection point, development ratio of 50% for residential and 33% for commercial and the set-backs are 1.8m to 3.5m depending on plot size (fig. 2).

ii. **Part II:** It is in reference to the foregoing that there is need to come-up with a model for Nigeria hence imperative to combine the obtained requirements especially where they are in agreement. Therefore the combined design requirement or summary of the three areas are layout or location plan (1:1000 or 1:500), floor plans, sections, elevations, details and set-backs (front – 6m, back - 3m, left and right side 3m), plot development ratio for residential 40% and commercial is 30%, while peculiarities are treated depending on the areas.(fig. 2).

On the other hand, the design requirements in Britain and the United States of America are summarized for the purpose of comparison. In Britain, the design requirement are notice of commencement, full scale plans (1:250), position of building with others and their boundaries and completion certificate issued by local Authority.

The case of United States of America, considers complete drawings and zoning which must be respected, Egress and fire protection with energy calculation must be respected and provided. Also, asbestos form for compliance for non – usage must be filled by applicant for compliance.

PART I:- DESIGN REQUIREMENT IN THREE LOCATIONS IN NIGERIA



*** Design Requirements**

- Layout or locational plan (1:500 or 1:1000)
- Floor plans, sections, Elevations, and details
- Set-backs (front – 6m, rights And left – 3m, back – 3m

*** Design Requirements**

- Detailed site plan (1:500)
- Set-backs (front – 6m, right and left – 3m, back – 3m
- Development ratio (residential 40%, commercial – 30% - 40%)

***Design Requirements**

- Site layout or location plan (1:500 or 1:200)
- Drainage details
- Location of Refuse collection point
- Set – back 1.8m to 35m depending on Plot size
- Development ratio (Residential 40% and 50% commercial)

Fig. 2.0 Design requirements in some Nigerian Cities
Source: Author's Field Survey (2009)

SYNTHESIS OF NIGERIA'S SITUATION AS REGARDS TO DESIGN

Synthesis of Design requirements in Nigeria

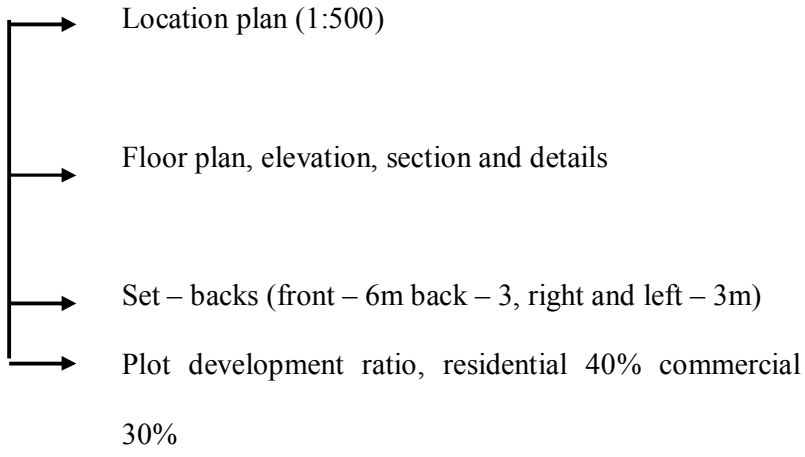
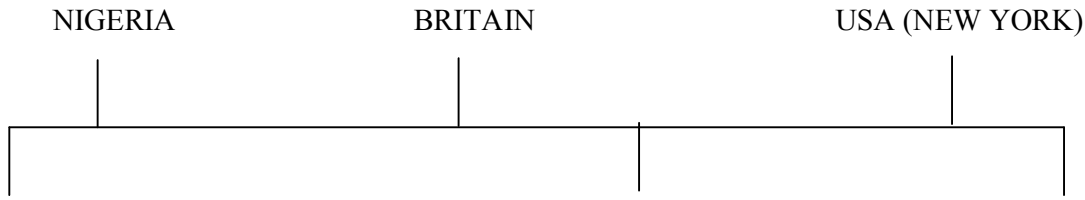


Fig. 2.1

Synthesis of Design requirement in Nigeria (a model)
Source: Authors Field Survey

PART II:- COMPARISON OF DESIGN REQUIREMENTS IN NIGERIA, BRITAIN AND USA



Design Requirements	**Design Requirements**	**Design Requirements**
* Location plan (1:1000 or 1:500)	* Notice of commencement Full scale plan (1:250)	* Zoning be respected
* Floor plans, sections, elevations and details.	* Positions of building with Others and their boundaries	* Egress be respected * Fire protection and * Energy calculations
* Set – backs (front 6m, Back – 3m right & left -3m)	* Completion certificate Authority is issued by Local Authority	* Asbestos form be filled by applicant.
* Plot development ratio (residential 40% & commercial 30%)		

(Fig. 2.2)

Comparison of Design Requirements in Nigeria, Britain and U.S.A.
Source: Author's Field Survey (2009)

2.3 PROCESS OF APPROVAL

As observed in most planning authorities in Nigeria, the two processes of planning permission and Building Plan Approval were merged into one aspect of Development Control, for instance in Kano and Kaduna States. These two operations should be separated as they are two different stages of obtaining permission for development (Popoola, 2002).

i) Planning permission entails issuance of certificate document to prospective developer as an enabling evidence of agreement that the intended development is permissible.

ii) Building Plan Approval entails the endorsement of architectural building plan, working drawings for the proposed development.

2.3.1 Planning Permission

At this stage, it is a permission to use and develop a specific property within a planning zone and is required for most forms of development. It is usually obtained through application to the appropriate planning authority.

Furthermore, this stage can be further sub - divided into two parts. (Poopola 2002)

a) Outline Planning Permission

i. It is simply to ascertain whether the envisaged development is permissible or not.

ii. It is in essence obtaining permission in principle before any design work commences.

iii. When permission is granted, it is for a maximum of three years.

iv. It is expected that full planning permission would have been sought before expiration of the plan period.

v. Developer can however omit the outline planning permission and seek for full planning permission.

b) **Full Planning Permission**

iii. The permission ensures the right to develop according to land use.

iv. It is therefore, the first legal hurdle towards development.

v. Application for full planning permission would include detail preliminary drawings of buildings showing uses of spaces, location of scheme and construction type.

vi. Permission is granted for a maximum period of five years.

v. It is envisaged that building plan approval would be sought before expiration of the period.

As applications are made, certain issues have to be considered in planning permission which includes:

i) Conformity to approved zonal landuse plan.

ii) Density of envisaged development in terms of built up spaces to land area and expected population to land area.

iii) Building height in relation to any height restriction within the zone.

iv) Adequacy or otherwise of set-backs and building lines.

v) Adequacy of plot size to envisaged usage.

2.3.2 Building Plan Approval

Building plan approval is required under the following four categories:

i. New development.

ii. Extension to an existing development.

iii. Major structural alterations of an existing development.

iv. Change in use of existing development.

These four categories include control over design material component and construction techniques of envisaged building for development. In a similar manner, issues considered are:

i) Suitability or otherwise of the proposed design of the envisaged usage.

ii) Suitability of construction materials and method.

iii) Structural stability of envisaged building for other issues relating to health and safety of users.

These two stages are important parameters to be entrenched in planning authorities working, in order to safeguard and for purposeful control of physical development. This is elucidated further, by one time General Manager of KASUPDA, in a working paper submitted to the planning and advisory committee for the Board's approval entitled, "Review of planning and space standards for Kaduna Metropolis" where these two stages were proposed (Popoola, 2002).

However, as noted in most Planning Authority Agencies, for instance Kano State Urban Planning and Development Agency (KNUPDA) in Kano State, where consideration is in tune with provision of layout where all planning considerations had been taken care of. Hence, planning permission is not given much consideration.

Architectural building plans are proposed for the purpose of land development for a particular use and usually undergo a process through Development Authority in Nigeria. In this respect therefore, the 1992 planning law requires that any developer, including various levels of government must apply for development permit before carrying out any development on land from the Development Control Department (Popoola, 2002). By and large the process of Architectural Building Plan Approval by Development Control Agencies in Nigeria is guided by a set guidelines referred to as "Building Regulations".

In Nigeria, the most documented Building/planning Regulations are based on Regional headquarters such as Lagos, Kano, Kaduna, Ibadan, Benin, Enugu, Sokoto, Maiduguri, Port Harcourt and Abuja. The parameters for selection and discussion will be, the length of use, growth rate and population, hence selection of Lagos, Kaduna and Abuja.

2.3.3 Process of Architectural Building Plan Approval in Nigeria

"In most of the documents available either as edict enacted, or as planning guidelines, planning standards and Building Regulations are provided under the same cover"(Popoola, 2002). This is the guiding law in preparation and submission of document for approval by developers.

Among those to be looked at are those of Lagos, Kaduna, Abuja and Kano as highlighted earlier. The requirements in these documents are being assessed to highlight the provision contained therein as the building plan approval process and procedure.

I. **LAGOS STATE:-** The Lagos State Town and Country Planning Law Cap. 133 (Building Plans) Regulation 1981 and amended 1982 provided conditions for acceptance, processing and Approval of Building Plans and it is in the Department of Development Control Division. However, a review of these regulations is under process. The Basic information required are preparation of drawings and documents required.

a. Preparation of Drawings –

i) Drawings must be prepared by and signed by qualified professional (Table 1, and schedule 1 of Building Plan Regulations 1986).

ii) Types of Drawings required are five (5) sets of Architectural Plans and structural plans are required and five (5) sets of mechanical and electrical drawings may also be required depending on the type of structure.

b. Documents required

i) Current Tax Clearance Certificate (TCC).

ii) Tenement Rate Receipts for the past 3 years or affidavit in lieu of this.

iii) Cloth or sum print copy of survey plan at UTM/NNO according to the survey regulations. All survey plans with UTM coordinates should be converted to NNO by licensed surveyor.

iv) Evidence of ownership of subject plot (if government allocated land certificate of occupancy and evidence of current ground rent payment).

v) Photocopy of processing fee receipt paid on submission of drawings.

II **Kaduna State:** The Kaduna State Urban Planning and Development Authority Edict of 1985 and amended in 1992 (Uloko and Agbonoga, 2005) and with recent, Town and Country Planning (building plan) procedure and regulations, 2005 highlighted on the set-up of the agency including the following.

c. Preparation of Drawing:- All drawings must be prepared and signed by qualified professionals in relevant fields.

i. Types of drawings – five sets of architectural building drawings signed by an architect registered to practice in Nigeria, structural drawings (five sets) with calculations and signed by Civil/Engineer/Structural Engineer registered to practice in Nigeria (in case of storey and structurally related buildings).

ii. Five sets of Mechanical and Electrical drawings endorsed by a professional (relevant) engineer registered to practice in Nigeria. Also a written undertaking by registered civil/structural engineer certifying fitness of existing structure to bear additional load on an existing structure.

iii. Furthermore, survey site plan must be signed by a licensed surveyor registered to practice in Nigeria and a certified Site Analysis Report (SAR) endorsed by a Town Planner registered to practice in Nigeria.

a) Documents required:-

v. Current Tax Clearance Certificate (TCC)

vi. Photocopy of receipt of relevant payments under the land rates edict, 1984 and that of processing fees.

vii. Copy of proof of ownership (Right of Occupancy, Certificate of Occupancy or Sales Agreement endorsed by the Head of the area where plot is located).

viii. Photocopy of previous approval in respect of the land already approved where renovation improvement or extension is to be made.

III **The Federal Capital Development Authority:-** Based on 1992 planning laws, produced document to guide development within Federal Capital Territory, reference to as Development Control Regulation, 1996, and reviewed as Abuja Development Control Manual, 2007. This Document extensively discussed various parameters of all aspects of planning control and is divided into three parts as:

i. Policy guidelines

ii. Land and development permit and

iii. Investor guide.

For the purpose of this discussion, part II of the manual is considered as relevant for it looked at regulations, standards, guidelines, out door advertisement and telecommunication masts/towers. The following are the considered process of building plan approval in Abuja.

a) Preparation of drawings

i. All drawings must be prepared by qualified professionals in the relevant fields.

ii. Type of drawing – Three hard copies of A3 size firmly bound and legible prints containing general notes, technical specifications, details and plans drawn to prescribed scale and one soft copy. These drawings include architectural, structural, mechanical and electrical and must be prepared by professionals registered to practice in Nigeria.

b) Documents required:

i. Evidence of Right of occupancy which shall be specific on actual use to which the plot is to be put.

ii. Environmental Impact Analysis Report (EIAR) for commercial, industrial, public buildings, recreational and large scale residential developments which must be prepared by qualified town planner.

iii. Evidence of payment of all financial obligations.

iv. Special development such as petrol filling stations, water supply and dwelling out-fits, private health and educational facilities etc. shall be accompanied with relevant letters/license of relevant regulatory bodies.

It is based on the foregoing therefore that an attempt will be made to discuss the procedural pre-requisite of Building Plan Approval Processes in Britain and the United States of America.

2.3.4 Process of Architectural Building Plan Approval in Britain

Consideration is given to relate Architectural Building Plan Approval in Britain and that which subsists in Nigeria. This is in relation to the fact that Nigeria was once a Colony of Britain and the latter's Town and Planning Act of 1932, where Government in Nigeria enacted its laws as the 1946 Ordinance, hence Cap 123 law of 1959 in Weston Region; Cap 126 law of 1963 for Eastern Region; and Cap 130 law of 1963 for the Northern Region (Popoola, 2002 and Bashorun, 2003).

In Britain, the Building Regulation 2000 under the statutory Instrument 2000, no 2531 (Crown Copyright, 2000) is for England and Wales. This came into force in 1st, January,

2001 and was made on 13th September, 2001 and laid before the parliament on 22nd September, 2000. The arrangement of this building wall, six parts such as General, controlling of building wall, Relaxation of requirements, Notice and Plans and miscellaneous. These six parts are followed by schedules dealing with issues such as requirements, exempt buildings and work and revocation of regulations. Part five of the Building Regulations which is the relevant part of this discussion which deals with Notice and Plans.

2.3.4.1 Notice And Plans

1. Giving of building notice or deposit of plan

   i) In the regulation "relevant use" means use as a work place of a kind to which part I of five precautions applies.

   ii) Under this regulation, if a person intends to carry out building and material change of use shall give a building notice and or deposit full plans with the Local Authority in accordance with regulation 13 or 14 respectively.

   iv) A person shall deposit full plans which he intends to carryout work in relation to building put or intended to be put to use and this will also include the erection of building a private street.

2. Particulars and Plans where a building notice is given,

   a) A building notice shall state the name and address of the person intending to carryout work and shall be signed by him or on his behalf, and shall be accompanied by a statement that is given for the purpose of this regulation, description of the proposed building work or material changing use and particulars of the location of building to which proposal relates and the use or intended use of the building.

   b) In the case of erection or intended of a building notice shall be accompanied by

i. The size and position of the building or the building as extended, and its relationship to adjoining boundries, building as extended, or proposed building within that cartilage.

ii. The width and position of any street on or within boundaries of the cartilage of the building or the building as extended.

iii. A statement specifying the number of stories (each basement level being counted as one storey), in the building to which the proposal relates, and

iv. Particulars of the provision to be made for the drainage of the building or extension and the precautions to be taken in building over drain, sewer or disposed main and the steps to be taken to comply with any local enactment which applies.

3. Where a building notice has been given, a person carrying out building work or making a material change of use shall give the Local Authority, within such a time as they specify, such plans as are, in the particular case, necessary for the discharge of their functions in relation to building regulations and are specified by them in writing.

4) A building notice shall cease to have effect on the expiring of three years from the date on which that notice was given to Local Authority, unless before the expiry of the period.

i. The building work to which the notice related was commenced or

ii. The material change of use described in the notice was made

5) Notice of commencement and completion of certain stage of work,

i) A person who proposes to carry out building work shall commence unless: He has given the local authority notice that he intends to commence work, and

ii) A person carrying out building work shall not: Cover-up any excavation for a foundation, any foundation, any damp proof course or any concrete or other materials laid over a site; or

iii) Cover-up in any way any drain or sewer to which these regulations apply, unless he has given the local authority notice that he intends to commence that work, and at least one day has elapsed since the end of the day which he gave the notice.

iv) A person who has laid, hunched or covered any drain or sewer in respect of which part of schedule 1 (drainage and waste disposal) imposes a requirement shall give notice to the effect to the Local Authority not more than five days after completion of the work.

v) A person carrying out building work shall, not more than five days after that work has been completed, give the Local Authority Notice to that effect.

vi) Where a building is being erected, and that building (or any part of it) is to be occupied before completion, the person carrying out that work shall give the Local Authority at lest five days notice before the building or any part of it is occupied

vii) Where a person fails to comply with paragraphs (1) to (3), he shall comply within a reasonable time with any notice given by the Local Authority requiring him to cut into, by open or pull-down so much of the work as prevents them from ascertaining whether these Regulation has been complied with

viii) If the Local Authority has given notice specifying the manner in which any work contravenes the requirements in these regulations, a person who has carried out any further work to secure compliance with this regulation, shall within a reasonable time after the completion of such further work given notice to the Local Authority of its completion.

6. Completion Certificates

i) Local Authority shall give certificate of completion in accordance with the provision of the regulation, where:

They receive a notice under this regulation that building work has been partly occupied before completion; and

- They have either been notified in accordance with this regulation that the building is put or is intended to be put to a use which is a relevant use as defined by this regulation or been required, in accordance with the regulation to give a completion certificate.

ii) Where in relation to any building work, as the case may be to any part of a building which has been occupied before completion, a Local Authority have been able to ascertain, after taking all reasonable steps, that the relevant requirements of schedule 1 specified in the certificate have been satisfied, they shall give a certificate to that effect.

iii) A certificate given in accordance with this regulation shall be evidence (but not conclusive evidence) that the requirements specified in the certificate have been complied with. The part VI of the Regulations looked at the miscellaneous aspect such as testing of drain, and sewers, sampling materials, supervision of building work otherwise than by Local Authorities unauthorized building wall and contravention of certain regulations not to be an offence, and finally transitional provisions and revocation.

2.3.5 Process of Architectural Building Plan Approval in United State of America

In the United States of America, Architectural Building approval is based on the fact that the Central Government or rather the Federal Government has little or no responsibility on laws and guidelines in terms of Building Plan Approval

except General Laws to guide the State. This makes it peculiar as against that of Britain where laws are applicable throughout the United Kingdom except Scotland. As there are over fifty (50) States in the USA where they all have their different guidelines for the purpose control of physical development, then the state of New York is considered for the purpose of this study because of its size in terms of physical development.

The Department of Buildings in New York City has requirements for application and permits which elucidated its process of Building Plan Approval (www.nyc.gov/html/dob/html/application and permits, on 15/1/2008). The law in New York requires that one or more permits must be obtained before starting any construction work (NYC Building Code 27-126). The general process at the Department of Buildings for filing an application and obtaining permit for jobs that are not professionally certified in elucidated as follows.

APPLICATION FILING AND PERMIT PROCESS IN NEW YORK USA

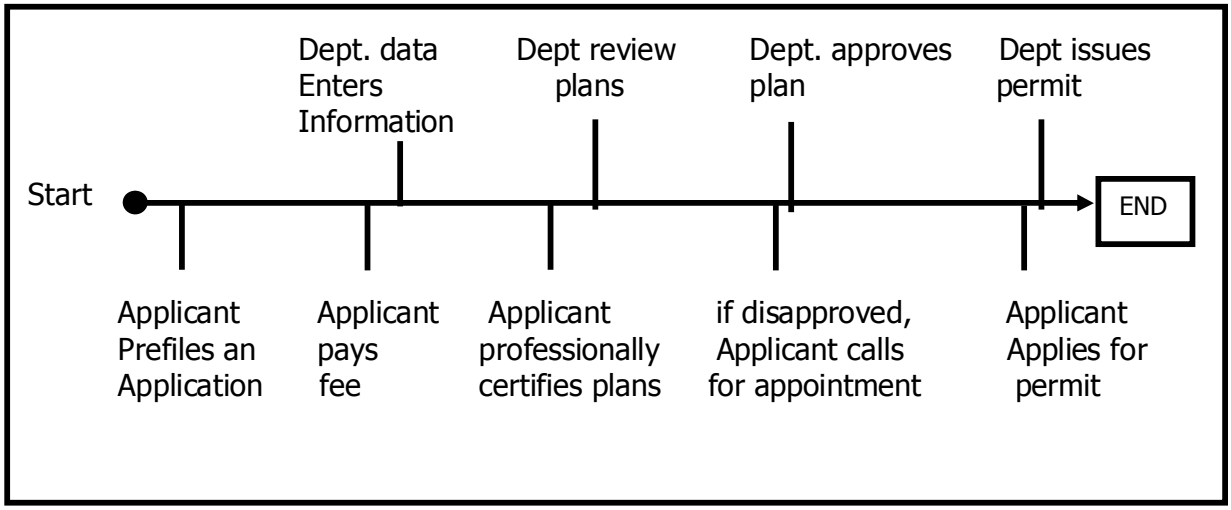


Fig. 2.3: Application process in New York City
Source: NYC Dept of Building

Step 1: Applicant profiles application in Borough Office

i. Applicant submits 3 copies of each of the following to pre-file in the Department.

ii. Complete set of drawings, including energy calculations

iii. PW – 1 from (attach schedules A, B and C if necessary)
Asbestos form.

iv Pre-filer checks for completeness, estimates cost and determine job types.

v. Pre-filer enters basic job information into Buildings information systems (BIS), assess fee and assigns a BIS job number to the application. At this juncture, it should be noted that upon finishing this pre-filing phase, the application folder is given back to the applicant. The applicant will bring back the folder to the cashier when ready to pay fees.

Step 2: Applicant goes to cashier and pays the fee

i. Applicant submits the application folder to the cashier and pays the fee.

ii. Cashier transfers the folder to the DEAR (Data Entry application review).

Step 3: Department Data enters application details

i. DEAR checks applications and confirm completeness

ii. DEAR data enters details of application

iii. DEAR transfer application folder to plan examiner

Step 4: Department reviews application plan

i. Plan examiner reviews the plan for compliance with one of the requirement as follows:

ii. Directive 14 requirements: zoning (use), egress and LL58/87 (disability) only.

iii. Directive 2 requirements: Egress (Building Code), Fire Protection (Building Code), multiple dwelling law, housing maintenance code and during the review, the plan examiner data enters into BIS any required items needed for construction work being described.

It should be noted that sprinkler applications are filed under Directive 135 but receive Directive 2 review in that the water supply is checked for compliance with Building Code if the plan is approved, the

i. Plan examiner stamps and sign the 3 complete sets of approved plans and other appropriate paper work.

ii. Plan examiner data enters approval status into BIS.

iii. Applicant is given the approved application (drawings and forms) to be perforated at the record room or other area designated by the Borough.

If the plan is disapproved.

iv An objection sheet will be completed by the plan examiner and e-mailed to the applicant (or mailed when e-mail address is nor available), informing applicant of areas that do not conform to applicable laws.

v. Plan examiner data enters disapproval status into BIS

vi The process described above may be repeated until all objections are resolved and the plan is approved.

It is to be noted that if changes need to be made to plan after the plan is approved, applicant may be required to file a "post Approval Amendment" (PAA). Also, Buildings Department offers professional certification programme which enables registered Architects (RA) and professional engineers (PE) to certify that the plans they are filing with the Department are in compliance with applicable laws. Plans that are professionally certified do not go through plan review.

Step 5: Department perforates the plan, and

i. Applicant submits to the permit clerk the approved folder with a stamp indicating that microfilm has been received along with the documents as follows:

ii. PW – 2 form, signed and notarized by contractor. If license, seal is required in lieu of notarization.

iii. PW – 3 form (cost affidavit), signed by contractor and notarized. If license, sign and seal.

iv. A cheque of thirty five dollars (for microfilming fee).

v. Permit clerk checks for fees due and valid insurance prior to producing the permit.

vi Any fees due, including balances and civil penalties for work without permit issuance.

vii. Appropriate insurance must be held by all potential permittee who is a homeowner.

In that case a waiver from workers compensation Board must be submitted.

viii. The permit is generated and the permit clerk enters the permit issuance data in BIS.

ix The applications require a new or amended certificate of occupancy, and others should simply be singed off when the work has been completed.

2.3.6 Comparative Analysis Process of Architectural Building Plan Approval in Nigeria, Britain and United States of America

As discussed earlier based on design requirement parameter, the comparative analysis here will be the process of Architectural building plan approval in Nigeria, Britain and the United States of America.

However, in order to arrive at a singular parameter for the three cases, the Nigeria context will be summarized i.e. the case of Lagos, Kaduna and Federal Capital Territory as Part I which will be compared with Britain and the United States of America (Part II)

Part I

i. Generally, the process of building plan approval in Lagos requires documentation in terms submission of a copy of Tax Clearance Certificate (TCC), Tenement Rate receipt, survey plan, and evidence of ownership, Ground Rent payment and application fees receipt. In addition, submission through the zonal office while drawings must be prepared by qualified professionals and its submission. Drawing requirements are architectural drawings (5 sets) detailed structural drawings and calculations including mechanical and electrical drawings.

ii. In the Federal Capital Territory (FCT), the documents required is letter of allocation, copy right of occupancy, certificate of occupancy, payment of Bills, Title

document (TD) plan and evidence of survey fees. Also payment of application fees, and submission to FCT or Area councils as the case may be.

Similarly, drawing requirements are architectural drawings (3 copies) on A3 size paper including structural and mechanical and electrical drawings bounded together. Drawings must be sealed and proposed by qualified professionals.

Therefore the synthesis for Nigeria's situation (Fig 2.5) is that the documents required are certificate of occupancy or any acceptable ownership document, survey plan, Tax Clearance Certificate and evidence of Ground Rent Payment. Others are evidence of application fees, submission to zonal office and drawings must be prepared by qualified professionals.

While drawing requirements are five sets of architectural drawings, structural drawings (5 sets) with calculations and mechanical and electrical drawings.

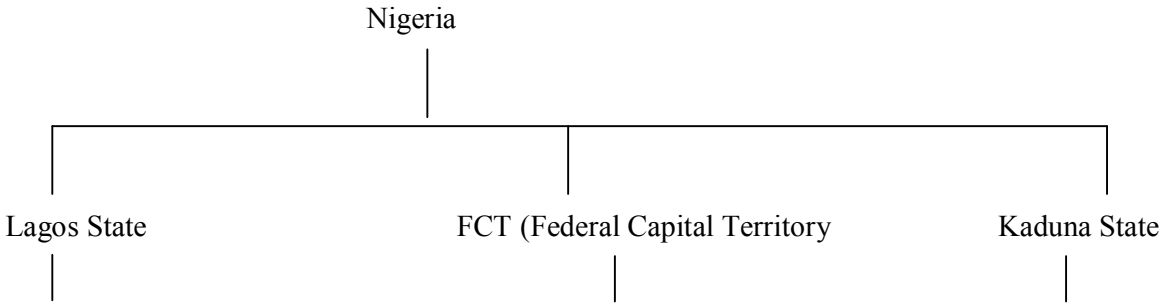
On the other hand, Building Plan Approval process to be considered for Britain and the United States of America are summarized for the purpose of comparison.

In Britain, the documents required are simply notice to Local Authority for intention to build or extend building. Also, the person intending to carry-out the work should sign the notice or on his behalf and description of building work or material change and location should be forwarded to the Local Authority.

The architectural drawing which should form part of the submission should show size, location, relationship with adjoining boundaries. Also, a completion certificate is issued by the Local Authority before occupation.

The case of United States of America, in terms of building approval process, documents required is applicant is to profile his application to Borough office under Department New York City which is the reference Area considered. Fees are to be paid while plan are certified by professional, but if a contractor is submitting, it must be notarized and certificate of occupancy must be attached. The Drawings required are architectural (complete set), estimate cost and job type which will include energy calculations. All drawings must be duly sealed by qualified professional.

PART I ARCHITECTURAL BUILDING PLAN APPROVAL PROCESS IN THREE LOCATIONS IN NIGERIA



*** DOCUMENTS**

- Tax clearance certificate
- Tenement rate receipt
- Copy of survey plan
- Copy of ownership document
- Ground rent receipt
- Receipt of application fees
- Drawings sealed by qualified Professional
- Submission of zonal officer.

*** DOCUMENTS**

- Letter of collection
- Right of occupancy
- Certificate of occupancy
- Evidence of survey fees
- Payment of bills
- Title document plan

*** DOCUMENTS**

- Copy of Certificate of occupancy
- Survey plan
- Processing fees
- Drawings by qualified professional

*** Architectural Drawings**	*** Architectural Drawings**	*** Architectural Drawings**
- 5 sets of Architectural Drawings.	- 3 sets of Architectural Drawings and one soft	- 3 sets of architectural drawings
- Structural drawings and Calculations.	- A3 – size bounded copy of all drawings	- Structural drawings with
- Mechanical and electrical Drawings	- structural drawings	- Mechanical and electrical where applicable.
	- Mechanical and Electrical drawings	

Fig. 2.4

Architectural Building Approval process In Some Nigerian Cities
Source: Author's Field Survey (2009)

SYNTHESIS OF NIGERIA'S SITUATION FOR ARCHITECTURAL BUILDING PLAN APPROVAL PROCESS

Building Plan Requirement

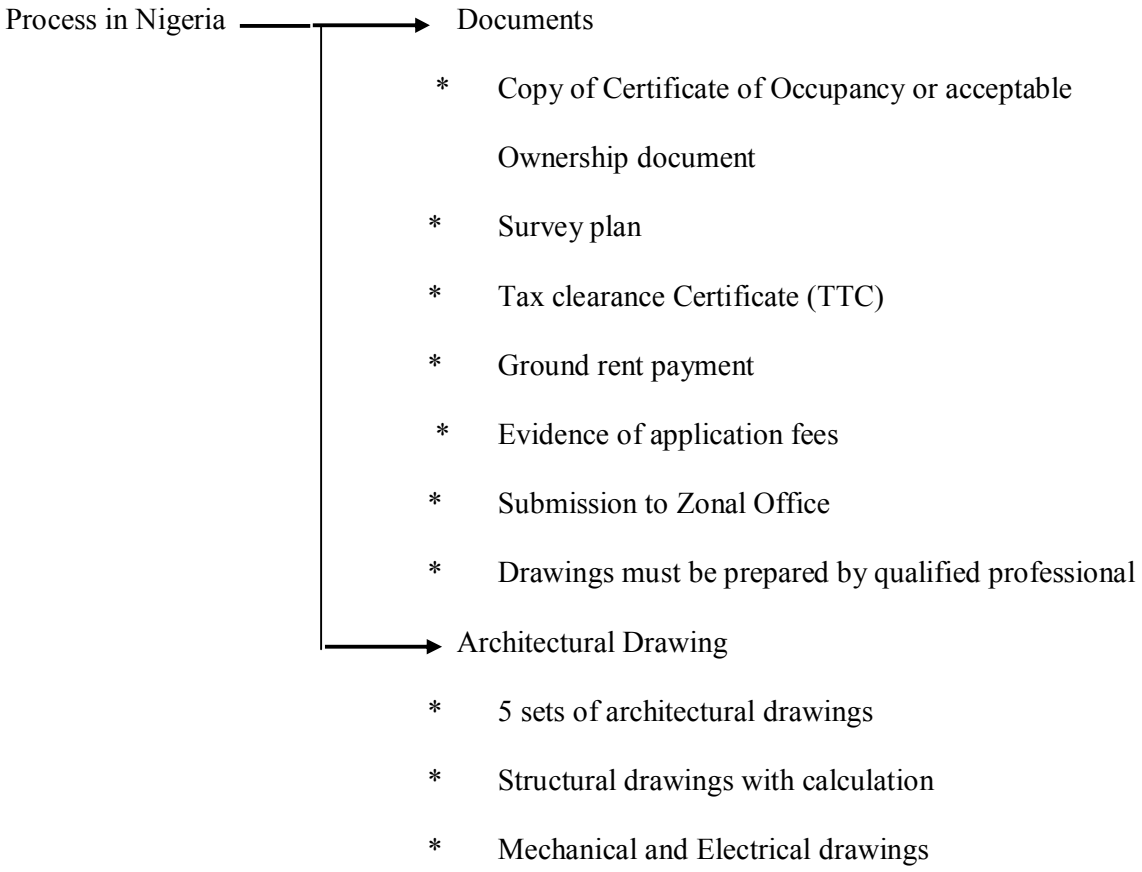
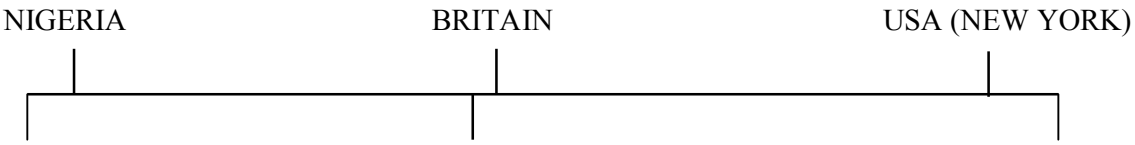


Fig. 2.5

Synthesis of Architectural Building Plan Approval process in Nigeria
Source: Author's Filed Survey

PAR II – Comparison of Architectural Building Plan Approval Process in Nigeria, Britain USA



DOCUMENTS	DOCUMENTS	DOCUMENTS
* Copy of certificate of occupancy or acceptable ownership document	* Notice to Local Authority for intention to build or extend a building	* Application is filed at the Borough Office (Dept of Building)
* Survey Plan	* Signing of notice by developer or his agent	* Fees must be paid
* Evidence of application Fees.	* Location should be Forwarded	* Plans certified by professional architect or notarized if not by architect
* Submission to zonal Office.		* Relevant forms for non – usage of Asbestos, fire etc. be completed.
* Drawings to be prepared by qualified professional		

ARCHITECTURAL DRAWINGS	ARCHITECTURAL DRAWINGS	ARCHITECTURAL DRAWINGS
* 5 sets of architectural drawings	* Architectural drawings show size, location, relationship with other buildings.	* Complete set of architectural drawings
* Structural drawings with calculations	* Also proposal with relation to the road.	* Estimate cost and job type
* Mechanical and Electrical drawings		* Energy calculations
		* Drawings duly signed by qualified professional

Fig. 2.6

Comparison of Architectural Building Plan Approval process in Nigeria, Britain and USA
Source: Author's Filed Survey

2.4 REVIEW OF LAWS AND REGULATIONS SETTING UPDEVELOPMENT CONTROL AGENCIES IN NIGERIA

In order to have proper perspective of setting-up of Development Control Agencies in Nigeria, one of the basic parameters is the legal instrument that provides for such Agencies and the need to review laws and regulations of setting them up.

2.4.1 Legal Instrument

Initially, planning legislation in Nigeria started as an executive matter (i.e. matter for the Federal Government only), then concurrent (can be legislated upon by both the Federal and State Government Law prevails).

Later it became residual matter (matter that is neither exclusive nor concurrent). However, Decree 17 of 1985 moved it to concurrent list again and it was followed by the Nigerian Urban and Regional Planning Decree of 1992. It is worth noting that planning activities in

Nigeria were regulated by the 1946 Town and Country Act of 1932. This resulted into Regional Government in enacting laws as to adopt 1946 ordinance.

Hence cap 123 laws of 1959 for Western Region; Cap 126 laws of 1963 for Eastern Region; and Cap 130 laws of 1963 for Northern Region which was simply adaptations of 1946 ordnance (Popoola, 2002).

It was only in 1992, that Nigerian Urban and Regional Planning Decree were promulgated to replace 1946 Town and Country Planning ordinance. The 1992 planning law of Nigeria recognized a number of statutory bodies for physical planning and development control such as:

i. Planning Commission at Federal level.
ii. Planning Board at State Government level
iii. Planning Authority at the Local Government level.

Whereas the development control at each level is to be handled by the Department for Development Control at each level (Popoola, 2002.

Among such agencies are the Lagos State Planning Authority Cap 133 (Town and Country Planning – Building Plans: Regulation 1981 as provided by L.S.L.N.N .S. No. 5 of 1982): Kaduna of 1976. It is also to be noted that Decree 88 of 1992 was amended by Decree 18 of 1999.

2.5 LANDUSE AND ZONING REGULATIONS

In order to control Urban growth and development as Urbanization takes its roots, Urban landuse and zoning regulations are among the factors considered. Landuse is basically, as opined by Uloko and Agbonoga (2005), the relationship between parcel of land and human activity in it.

It is also where parcel of land is demarcated or outlined for a specific kind of use of human activity such as residential, commercial or industrial layouts with clear idea of zoning in terms of height, size and use of building.

Accordingly, these buildings are shaped in terms of zoning regulations, (Uloko and Agbonoga, 2005) such as combination of uses, vehicular and parking, building height restrictions and building line and plot development ratio. This is
in addition to landscaping, acceptable design aesthetics and standards and provision of basic facilities form the core aspect of zoning regulation as described as follows:

i) Combination of uses – Acceptable combination of uses in terms of retail and office, retail and residential, office on upper floor, office and residents, retail and warehousing are among the few combinations considered.

ii) Vehicular access and parking – provision of service access and parking shall be considered based on acceptable design arrangement.

iii) Building line and plot Development Ratio – Building lines are observed depending on plot size, number of floors, and plot development ratio. Similarly set-backs and distances between two buildings are parameters to be considered.

iv) Landscaping – Developers are encouraged to plan trees, shrubs to screen parking and service accesses wherever practicable.

v) Architecture – Developments shall be of acceptable Design standards. Also, existing character of the area shall be considered by consultants in their design proposals.

vi) Provision of basic facilities – An acceptable number of WC's (water closets) and shower/bath and kitchen area shall be considered according to the type of development. Other facilities are lifts, stairways and elevators.

It is therefore imperative to note that zoning simply help in shaping the city and determines the size and use of buildings, where they are located (NYC Dept of city Planning, 2008).

2.6 THE DEVELOPMENT CONTROL AGENCIES AND THEIR WORKINGS IN NIGERIA

The 1992 Nigerian Urban and Regional Planning Decree no 88 provided the statute for control of physical planning and Development Control in Nigeria (Federal Republic of Nigeria, 1992). The bodies recognized in this aspect are:

a. Planning Commission at the Federal level.
b. Planning Board at the State Government level and
c. Planning Authority at the Local Government level.

The workings or functions of these bodies as opined by Uloko and Agbonoga (2004) are:

1) Functions of the Commission at Federal level

The Commission shall perform the following functions such as:

a) The formulation of national policies for urban and regional planning.
b) The initiation, preparation and implementation of the National physical plan, regional and subject plans.
c) The establishment and maintenance of urban and regional planning standard.
d) The conduct of Research in Urban and regional planning.

e) The promotion of coordination among state and Local Governments in the preparation and implementation of Urban and regional plans.

f) The supervision and monitoring of the implementation of National Physical Development Plan and development control.

g) Any other functions as may be assigned to the commission from time to time.

2) Functions of the Board at State level

a) The formulation of the State policies for Urban and regional planning.

b) The initiation and preparation of regional, sub-regional and Urban/master plans.

c) The development control of state lands.

d) The conduct of research in Urban and regional planning

e) The provision of technical assistance to Local Government.

f) The consultation and coordination with the Federal Government and Local Governments in the preparation of physical plans.

g) The preparation and submission of annual progression the operation of the National Physical Plan as it affects the state; and

h) The review of annual report submitted to it by the Authority.

3) Functions of the Authority at Local Government level.

a) The Authority shall be charged with responsibilities for preparing town, rural, local and subject plans.

b) The Authority shall prepare and submit to the Board and annual report on the implementation of the National Physical Development Plan and State Regional Plan.

In addition to these functions at various levels, the 1992 planning law requires any developer, including the various levels of governments, to apply for "development permit" before carrying out any development on land from the Development Control Department.

In Kaduna State, it is the Kaduna State Urban Planning and Development Board (KASUPDA), in Kano, it is the Kano State Urban planning and Development Authority (KNUPDA), in Federal Capital, it is the Federal Capital Development Authority (FCDA) and in Lagos, it is the Lagos State Urban Development Board (LSUDB). They are the clearing Agencies for development, approving and monitoring for all government projects in their areas of jurisdiction.

2.6.1 The Presence or Absence of Architecture Department in-development Control Agencies in Nigeria

The 1992 planning law, provided that the Development control Department, shall be multi-disciplinary. It has been observed that building plan approvals are only subjected to assessment by architects while final approval is granted by planners under the Development Control Department in almost all the Development Control Agencies in Nigeria. As was posited by Okedele (2005), that physical development should as a matter of urgency, set out in clear terms, the difference between "physical planning permit" and "Building Regulation Approval".

In almost all states in Nigeria, Town planners, finally approve all buildings for construction!! This, he believes, is the fundamental source of urbanization problems in Africa: Nigeria as a case in hand. This was based on a research carried out by Hall in 1990 which established architects' views and grievances. By and Large, Department of Architecture in Development Control Agencies are almost absent. However, in Kano State, there exists Architecture Department where building plans are assessed and approved by architects with an existing Building Regulation since 1987.

It is to be noted that planning permit is substantially different from Building Plan Approval. If an assessment of building plan is submitted to a Development Control Agency for approval, then the onus is on the assessor to approve such building plans for construction. This goes along way or rather borders on legality where such an assessor is liable for whatever he approves for construction.

Similarly, Development Control Department, by laws shall be multi-disciplinary (Federal Republic of Nigeria, 1992), and then other disciplines within the physical built environment, as stakeholders, should be respected by allowing them to manage their affairs under an umbrella of Development Control Unit.

Therefore, it is a negation of development control, not to allow architects to have a Department for purposeful and efficient development control in our cities. The fast urbanization process in Nigeria, with its consequences can only practically be articulated when disciplines within such units coexist with each other for efficiency in our built environment (Okedele, and Kayode, 2008).

2.6.2 The Place of National Building Code in Development Control process

The National Building Code (NBC) came into being on 2nd August, 2006 after several years of conferences, seminars and workings since 1987.
The need for this document, National Building Code (2006) evolved due to the following:

1. The absence of planning in Nigerian towns.
2. Incessant collapse of buildings, fire, built environment abuse and other disasters.

3. Dearth of reference design standards for professionals.
4. Use of non-professional and quacks.
5. Use of untested products and materials.
6. Lack of maintenance culture.

It is in view of the forgoing that the National Council on Housing and Urban Development initiated the process of evolving National Building Code (NBC) so as to curve out the ugly trends in the Building Industry.

Similarly, part III of the Code (NBC) clearly elucidated enforcement in terms of control of building work which relates Development Control process. Section 13.1 of NBC (2006) emphasized on establishment of control of Building works with code enforcement unit at Federal, State and Local Government level in their scope in terms of pre-design stage, construction and post-construction stage. Section 13.3, 13.4, 13.5 and 13.6 delved on violations and sanctions; Board petition, unsafe Buildings, structure, Building services and equipment, and Notice. Another important section is 13.7 which deals with inspections it can safely be adduced that the National Building Code (NBC) gave a full section in support of efficient Development Control process which if implemented to the lather can take care of the five points enumerated which brought about evolution of NBC.

2.6.3 The problem of Collapsed Building in Nigeria and the issue of Development Control Units

In the year 2008, virtually all the six geopolitical zones in Nigeria registered at one time or the other the problem of collapsed buildings. Among them are Lagos, Abuja, Ibadan and Kano to name just a few.

The collapse usually resulted in loss of lives and properties which translated into loss of investment. In the area where collapse occurred, investigation

panels where set-up and more particular is the white paper which was a follow up of the committee set up by the FCT Administration over the collapsed building in Utako District, Abuja as reported by Daily Trust of 19th September, 2008. Among the recommendations was the sanctioning of the developer.

Similarly, the white paper recommended that planning permission and building plan Approval should be handled and implemented separately as required by law. Also, it recommended that the Development Control Department should be re-structured in line with the provisions of the Urban and Regional Planning Decree no 88 of 1992. It is to provide an efficient supervisory framework for the Department alongside the required structure at the Area Councils at FCT. It is therefore pertinent to note that the Development Control Units are not efficient enough to provide proper and adequate supervision notwithstanding the Urban Planning Law of 1992.

CHAPTER THREE

METHODOLOGY AND RESEARCH METHODS

3.1 METHODOLOGY

This is the study of methods of undertaking a research and refers to that theory and analysis that informs the production of a particular kind of research. As observed by Asika (2004) that researcher is invariably a scientist and that research itself is part of science. Research strategies or techniques in architecture according to F. Kerlinger (1973), Peil (1982) and Asika (2004) can be causal, experimental, descriptive, exploratory, comparative and historical. Similarly, undertaking a research may require or involve more than one method or strategy which may call for combination of methods to be adopted, depending on the appropriateness of the method against the objectives of the study.

In order to pave way for the appropriate techniques or strategy to be used, the research question is essential at this juncture is what is the root cause of non-compliance of approved building plans, during development process in planned areas of Kano metropolis. Therefore, combination of strategies will be utilized which are causal, exploratory, historical or archival and comparative strategy to research in Architecture.

In assessing the degree of contravention and nature of such contravention, the archival (Historical) method will be used. This will include discussion on the Agency responsible on its structure, schedule of duties and its records.

The records of the Agency which is Kano State Urban Planning and Development Authority (KNUPDA) will be the files dealing with approval of building plans. These files will reveal the history of the procedure followed in making approvals for any development in Kano

metropolis in planned areas, so also the numbers treated annually in different planned areas of the metropolis.

These data is expected to provide basis whether contravention exists or not.
On the other hand, in identifying the reasons for such contraventions, causal and explanatory will be utilized, through combination of questionnaire, structured interview and measured drawings.

The questionnaires to be administered are to be divided into that where consideration will be owners/occupants, principal officers of the Agency and Consulting Architects dealing with the Agency. The 3 groups of respondents from questionnaires will help in finding out why contravention takes place so also its extent and its identification.

Finally exploratory and comparative methods will be used to avail the impact of contraventions from the questionnaire and to be compared with observation, measured drawings and satellite images. The measures drawings will be those cases considered from the archive of KNUPDA and such drawings from the file be analyzed in term of architecture planning and services. Inference is to be deduced from same.

3.2 RESEARCH METHODS

They are simply tools used in collection of date for research where chosen research strategy helps to indicate the most appropriate research methods. This connotes that selection of appropriate methods will therefore depend on the strategy for research hence each research strategy requires appropriate methods.

It is to be noted that undertaking a research may require or involve more than one method hence combination of methods may have to be adopted, depending on the appropriateness of the method against aims and objectives.

Based on objectives of this study, the exploratory, descriptive and inferential causality will be used while quantitative techniques will be utilized due to heavy reliance on numerical quantities for this study.

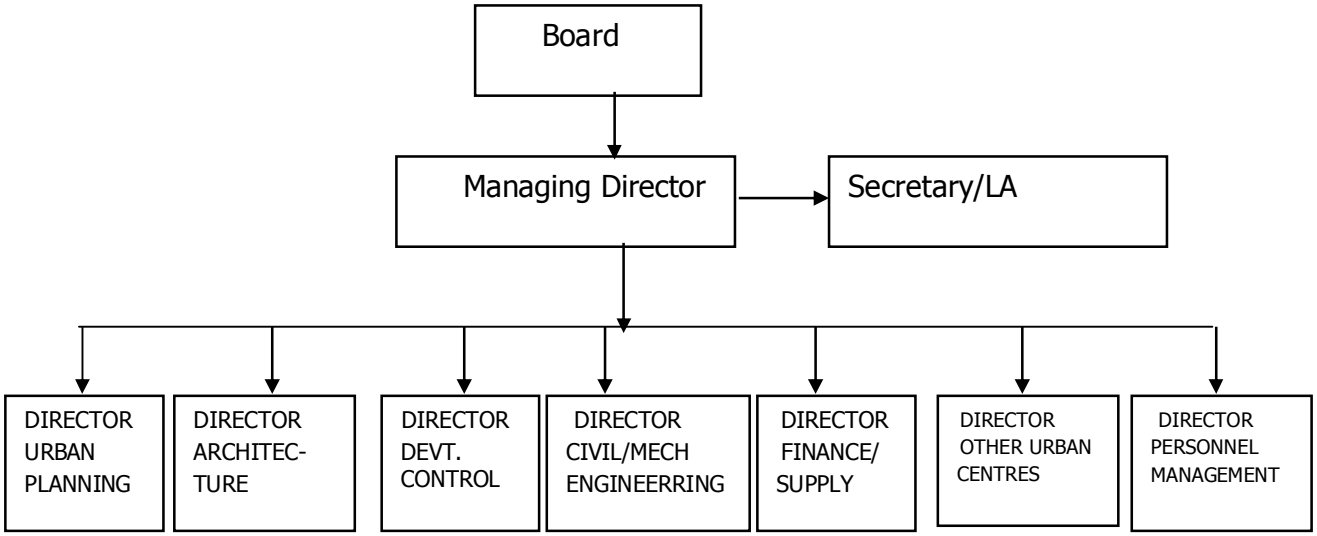
The fieldwork is to consider contravention of Approval Building Plans against Urban and Landuse in Planned Areas of Kano Urban metropolis. The Building plan approvals are granted for various purposes under the planning approval unit of Kano State Urban Planning and Development Authority (KNUPDA). The approval unit in KNUPDA is Architecture Department, and is responsible for vetting and approving of architectural building plans.

3.2.1 The Agency – Kano State Urban Planning And Development Authority (KNUPDA)

It was established in 1975 as Kano Metropolitan Board and changed to Urban Development Board, Kano State Urban Environmental Planning and protection Agency and now Kano State Urban Planning and Development Authority. It coordinates and controls Physical Development of Kano Metropolis and this implies control of building development.

Its organizational structure or organogram is as below:

Fig. 3.1 Showing Organisational Structure or Organogram of KNUPDA



Source: KNUPDA 2011

As per the organogram with and in relation to the study, the most important departments are Urban Planning, Architecture, Development Control and other Urban Centers. They are directly in charge of all Development Control activities within Kano metropolis and other Local Government Headquarters.

3.3 RESEARCH DESIGN

This study will involve survey and quantitative methods with clear focus on landuse in planned Areas of Kano Metropolis, to the layouts and finally to the small unit of layout which is the plot. The approved building plans will be assessed in terms of conformity and non-conformity or rather contravention to the granted approval as it reflects design requirements. The data general will be evaluated considering the impact the contravention will have on the Architecture, landuse, and infrastructure and services.

1) Through literature review to:

i) Consider the subsisting relationship of Urban Landuse and Building development.

ii) Assess selected building regulations in Nigeria.

iii) Identify the development control process in Nigeria.

iv) Compare the development control process in Nigeria with what obtains in Britain and the United States of America.

3) Through field work in Kano.

ii) Describe the trend of non-conforming to building regulation of approved building plans in identified layout of Kano Metropolis.

iii) Find out the extent of discrepancies of approved building plans in identified area of Kano metropolis with the buildings constructed.

iv) Find out the basic reasons for contraventions of approved building plans and the constructed buildings.

v) Assess the impact of contravention of the architecture and infrastructure.

4) From findings in Kano Metropolis.

iii) Suggest strategy in ameliorating the reasons for contravention of approved building plans.

iv) Propose measures for reducing the negative impact of contravention.

Consequently the assessment will help in process for landuse preparation, approval agency process and development control aspect.

The procedure of the study is as follows.

1) Classification of identified landuse in Kano Metropolis.

2) Sampling

3) Pilot survey

4) Data collection

5) Data Analysis

3.3.1 Classification of identified Landuse in Kano Metropolis

This will help towards fieldwork planning and effective sampling. It will be undertaken through literature review, planning regulations, layouts of various areas based on identified landuse.

3.3.2 Sampling

Cluster sampling will be utilized for this study and the areas to be studied must meet the objectives of the study and the selection is from the Planned Areas of Kano Metropolis. The type of landuses to be considered are Residential Commercial and industrial, while the selection at this juncture will come from observed areas where likelihood of occurrence is high. Also the sampling must take congisance of assessment of impact on landuse such as parking facilities, change in Architectural character hence loss of definition etc.

3.3.3 Pilot Study

The pilot study was conducted for testing of data, collection instruments such as field forms, questionnaires, interview schedules, case studies, and adjustment is made where necessary. This involved selected area attributes through visual survey, observation, written accounts, photographs and interview, and questionnaire administration data will be collected on the face value of these attributes.

3.3.4 Detailed Study

This comprises of assessment of contravention of approved Building Plans as against landuses in Kano Metropolis, Design requirements and survey of approved architectural building development.

The contraventions were assessed using evolution of the metropolitan Kano 2000 master plan and its review in terms of layouts provided therein. The Architectural Building Plans where requirements are principally the basis for approval will use the Building Regulations of 1988 for Kano State (Kano State Government, 1988). This will give a picture of how to assess the contravention or its level. It is through this, that the impact on basic infrastructure and services can be determined.

Information for the assessment was sought from Kano State Urban Development Authority (KNUPDA), Ministry of Works, Housing and transport, Ministry of Environment and any other policy making body of the State in terms of Building Planning and Development.

Survey of Architectural Building development considered approved architectural drawings and the contravention of some under the guidance of Building Regulations and Landuse.

In depth study was undertaken through information which was purposively selected areas in various identified land uses in Kano Metropolis.

Information required will include:

a. Approved land use
b. Documents – master plan, building regulations etc.
c. Approved Architectural building drawings
d. Design requirements in terms of building regulations.
e. Issue of contraventions of approved drawings
f. Issues on impact of contravention.

3.4.1 Data Collection

Open ended questions were administered to obtain response from official of the planning Authority, consulting firms, developers and owners of the buildings. The interview method was used in order to give better understanding of the study through face – to – face contact; this will help in obtaining large contextual data (Greenfield, 1996; Philips, 1971).

Survey and observations foster detailed understanding of the actual situation's (Bryant, 1992). In order to record the surveys and observations, tapes, camera, sketch sheets and field forms were used.

Also chronology of time helped in providing the two limits of upper and lower in terms of time. In this regards, the time periods are selected based on establishment of Kano State Urban Planning and Development Authority in 1975, though it started as Kano Metropolitan Board, then to Kano State Urban Development Board to Kano State Environmental Planning and Protection Agency and to its current name, Kano State Urban Planning and Development Authority.

Therefore, time periods will start from 1990 whereas the sequence will be of ten years period as:-

i. 1990 to 2000

ii. 2001 to 2010

So the two periods will span twenty (20) years for consideration of this study.

3.4.1.1 Variables of the Study

The independent variables are approved architectural building plans approved architectural building plans involves the process of obtaining approval for any development within the planned areas of Kano Metropolis in terms approved land use.

Dependent variable is the activity which makes the building development contrary to the building regulations. Selection will be in accordance with identified areas of the major land use.

In order to have a good picture of observation where discrepancies exist between approved building plans and constructed ones referred to as contraventions, the developed areas in layouts are of major importance and will provide a basis for comparison. Cluster sampling will be conducted according to the number of approvals within a period and will cut across the major identified land uses.

Therefore, the study will attempt to establish the reason for contravention of approved building plans when structures are built.

3.4.2 Data Analysis

Data will be analyzed by use of tables, descriptive statistics (percentiles, standard deviation, means, median, mode etc). In descriptive statistic, summarization of data collected through questionnaires and interview schedules will be employed. The result will simply be a guide for similar situations with problems of contravention of approved building plans and not a generalization.

3.4.3 Conclusion

The conclusion will focus the likely outcome or result of the study which will guide far.

i. Process of land use preparation

ii. Approval agency process

iii. Development control aspect

iv. Guarding against impact of contravention

v. Contribution to the field of knowledge.

CHAPTER FOUR

RESULTS AND ANALYSIS

4.1 THE STUDY AREA

This refers to extent of Kano State Urban Planning and Development Authority Legal bounds and takes the whole of Kano Metropolis, all the Local Government Headquarters (44 numbers) to a radius of 10km. However, Kano walled city is not affected but if a conversion of customary title to statutory is effected, then all relevant laws are to be applied. Similarly cases of drainage blockage and building within road reservation are treated by KNUDPA even though they are in the walled city.



Fig.4.1 44 Local Government areas of Kano State

4.2 PLANNED AND UNPLANNED SETTLEMENT

The issue here is that most of the planned settlements are bordered by unplanned ones. This throws a challenge as to the harmonious living environment against the developments to be provided. Those living in unplanned areas may not appreciate the concern of the government as it relates to developmental projects because these kinds of settlers are simply not easy to deal with both socially and economically.

4.3 ASSESSMENT OF DEGREE OF CONTRAVENTION

The Assessment of Degree of Contravention is to find out the degree and nature of contravention in a selected Area of Kano Metropolis.

Similarly the pilot study area selected is Sabon Gari which falls within Kano Central Business District and Fagge Local Government Are Council is selected. The famous Sabon Gari market is part of this layout.

Its selection is based on the following:

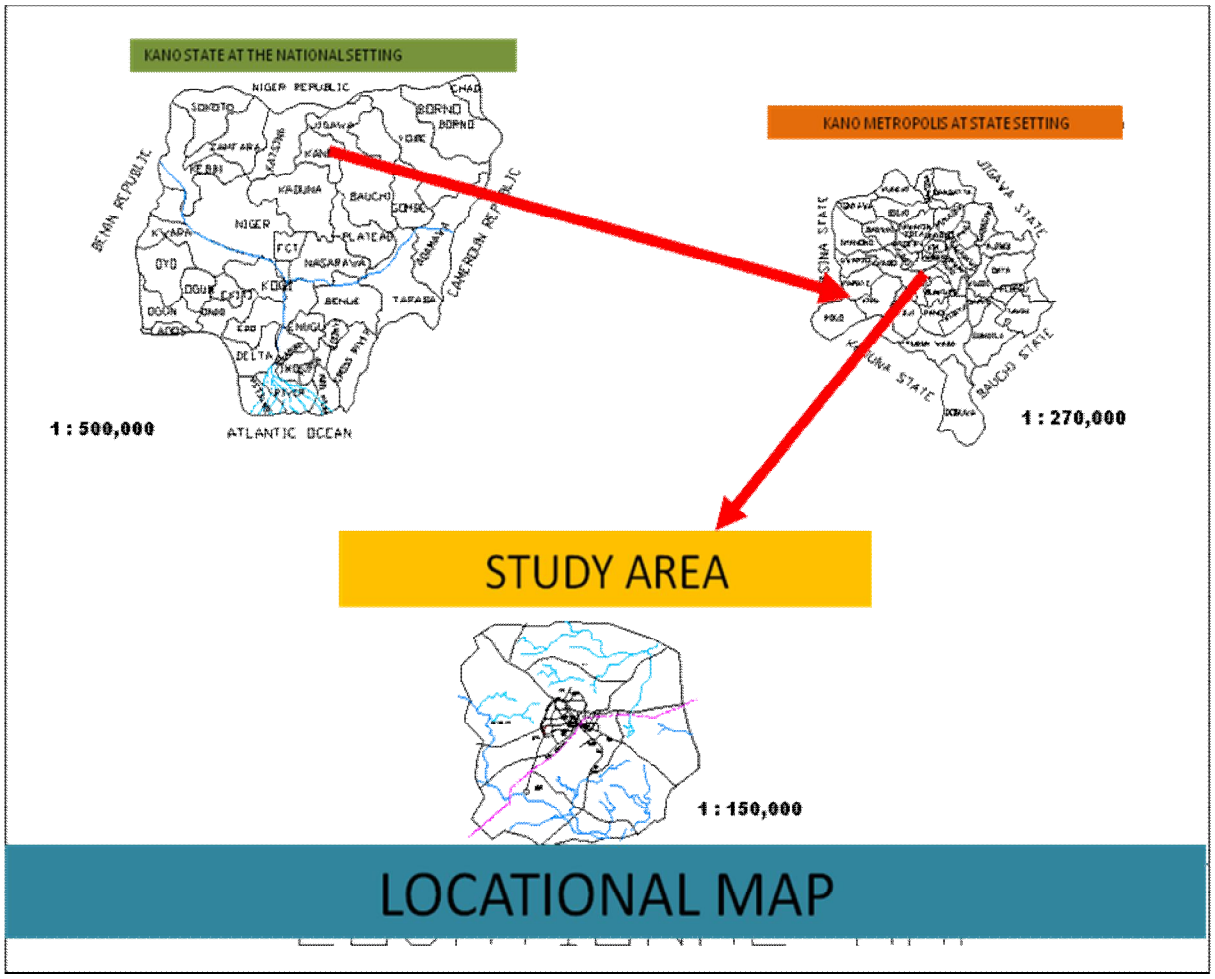
i) One of the oldest layouts in Kano.

ii) Combining residential, commercial and heavy commercial or small scale industries.

iii) Is almost fully developed, now in it's first phase of re -development.

iv) Ownership documents are not statutory but policy to change has been in place over fifteen years.

Fig. 4.2 location of study Area



Source: Ministry of Land and Physical Planning 2011

The predominant landuse type in the area is residential cum commercial whereas the occupiers are generally middle and high income class which is represented by the kind of buildings found in the area.

4.3.1 Data Collection

As Sabon Gari area was identified based on relevant parameters, the collection of data was started through archival method where files from the Development Control Agency were checked for data collection from 1990-2009.

The parameters used are:

i) Number of approved buildings plans annually.

ii) Number of notices served to developers annually.

iii) Number of responses from notices.

It is to be noted that cases of approved building plans are those who officially apply for approval while notices are served to defaulters of either started building without approval or contravene the approved building plan. On the other hand responses to notices referred to as registration cases are developers served with notices where they responded accordingly and such developments when registered are termed to be approved.

4.3.2 Data Analysis

Objective 2(i): To evaluate the degree of contravention of development control regulations in selected areas of Kano metropolis

Fig. 4.3 satellite image of Sabon Gari area, Google Earth, 2011



Source: Google Earth 2011

In order to have a picture of the situation in respect of area under study, i.e. Sabon Gari (fig.4.3), information from 1990 – 2009 has a total 287 applications.

Below is the table with computation of approval building plans. Those given notices, which indicates buildings or developments undertaken without approved and registration cases which involves developments considered after been built.

Table 4.0 showing Building Plan Approval and Notice for Sabon Gari (1990-2009)

S/No	Year	A No of Building Approved	B No of notices	C No.Registration cases	Total
1.	1990	5	27	2	34
2.	1991	3	15	0	18
3.	1992	6	12	0	18
4.	1993	5	13	0	18
5.	1994	2	8	0	10
6.	1995	2	11	0	13
7.	1996	2	6	0	8
8.	1997	4	12	0	16
9.	1998	6	9	0	15
10.	1999	1	9	0	10
11.	2000	2	5	1	8
12.	2001	0	15	0	15
13.	2002	6	1	2	9
14.	2003	1	4	0	5
15.	2004	0	4	0	4
16.	2005	2	0	0	2
17.	2006	3	5	0	0
18.	2007	3	6	2	11
19.	2008	4	34	2	40
20.	2009	4	20	1	25
	Gross Total	**61**	**216**	**10**	**287**

Source: Field work, 2010

From above data, the percentages of the three scenarios is:

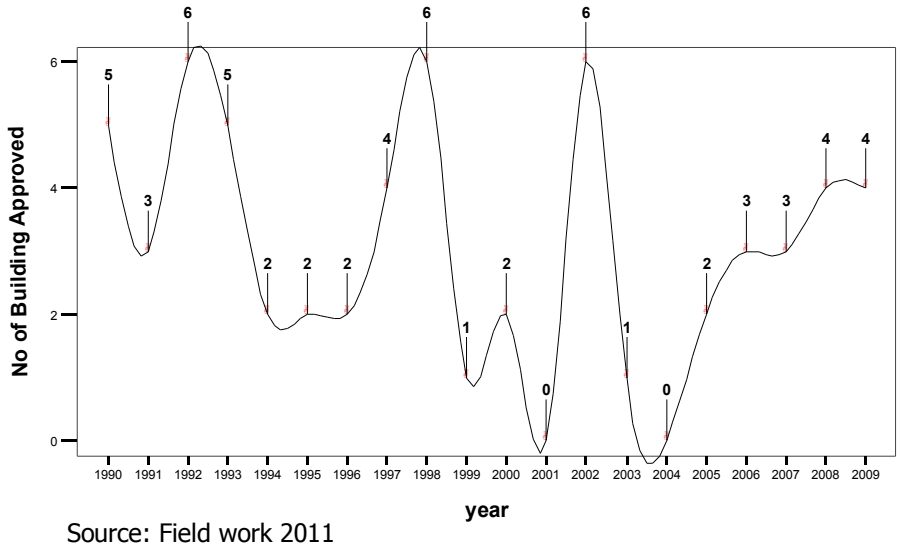
1. Approved building plans in 20 years = 61/287 x 100 = 21.25%
2. Number of notices served to defaulters in 20 years= 216/287 x 100 = 75.26%
3. The mean and standard deviation as per table 5 for buildings approved was 3.05 and 1.905, notices 10.8 and 8.464 while registration cases was 0.5 and0.827 respectively.

TABLE 4.1 SHOWING MEAN AND STANDARD DEVIATION OF CASES ON APPROVAL, NOTICES AND REGISTRATION IN TWENTY YEARS

	Sum	N	Mean	Std. Deviation	% of Total Sum	% of Total N
No of Building Approved	61	20	3.05	1.905	100.0%	100.0%
No of Notices	216	20	10.80	8.464	100.0%	100.0%
No of Registration Cases	10	20	.50	.827	100.0%	100.0%

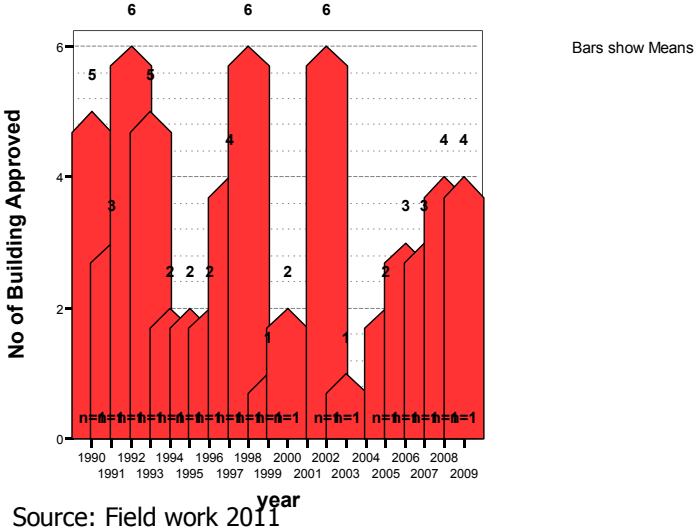
Source: field work 2011

Fig. 4.4 Dot/Line of Mean



Source: Field work 2011

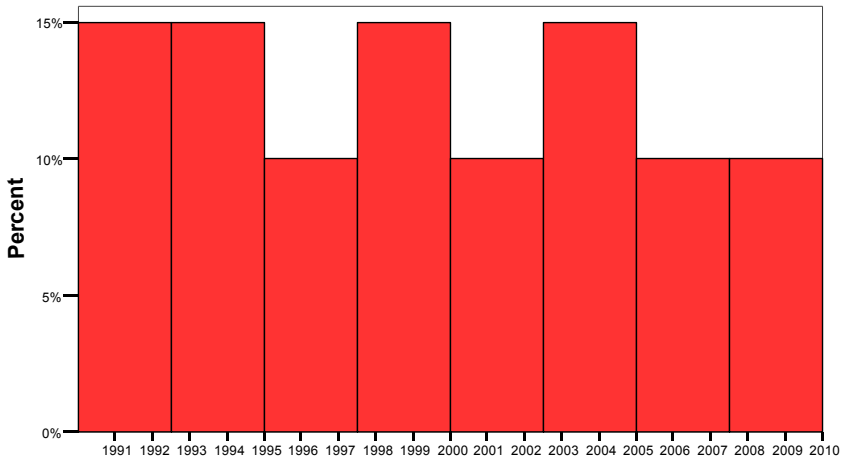
Fig. 4.5 Number of buildings approved from 1990-2009.



Source: Field work 2011

HISTOGRAM

Fig. 4.6 Percentiles per annum of approvals in Sabon Gari from 1990-2009



Source: Field work

4.3.3 Basis Of Analysis

The importance of the survey Table 4.0 is to analyse it in order to provide some answers to questions so far adduced. It is in light of the foregoing therefore that the following will form the basis for same:

A. Building approvals in Sabon Gari (1990 – 2009)

   1. Trend – how can it be explained?

   2. Total what does it reflect?

B. Contravention notice (Nature of the contravention)

   1. Trend, - over the years, what can be observed?

   2. Total – Group A – contravention before submission

      Group B – deviation from approved drawings

      Group C – deviation from landuse approval

C. Compliance with contravention notices

   1. Trend – its explanation

4.3.4 Comparative Analysis

Therefore if A + B is combined, it proffers comparative study is in terms of approval/contravention while combination of B + C is in terms of contravention/compliance.

i) Show that contravention is rampant

ii) Questionnaire is to consider reasons for this trend. Identify nature of contravention

iii) Effect of such contraventions on the elevations of the developments.

A. Building Approvals in Sabon Gari (1990 – 2009)

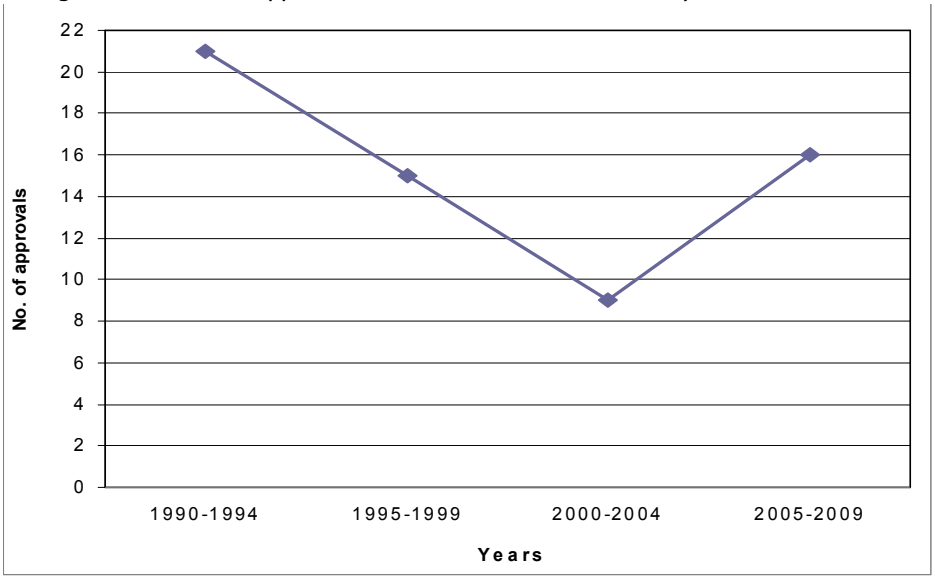
Trends: 1. It can be explained in terms of number of buildings approval between 1990 – 2009 which numbered 21 cases, as per fig. 4.5, where the number of approvals fell down from 21 nos in 1990 – '94 to 9 nos. in 2000 – 2004 while it suddenly increased to 16nos in 2005 – 2009. This reflects likely hood of the planning authority becoming more vigilant from 2005-2009

Table 4.2 Showing Approved cases from 1990-2009

S/NO	5 YEAR INTERVAL	NO. OF BUILDING APPROVED
1.	1990 – 1994	21
2.	1995 – 1999	15
3.	2000 – 2004	9
4.	2005 – 2009	16

Source: Field Work 2011

Fig. 4.7 Number of approvals for Sabon Gari for each five years



Source: Field work 2011

B. Contravention Notice (Nature of contravention)

1. Trend – Over the years as per table 4.2, it was observed that there an 21 no. cases of notices served to developer in Sabon Gari between 1990 – 2009. Reference to fig.4.7, the graphical presentation shows a fall from 75 notices in 1990 – 1994 to 29 notices in 2000 – 2004 and sudden increase to 65 notices in 2004 – 2009.

2. Trend other groups contravention could be as a result of:-

   Group A) Contravention before submission.

   Group B) deviation from approved drawings.

   Group C) deviation from landuse approval.

   Group D) setback

In this category, a sample is taken on approved building plans in Sabon Gari between 1990 – 2009 where 31 cases were taken out of 61 cases representing more than 50%, and their

approved building plan files were referred (KNUPDA's files) to and below is a table representing same. The following was obtained.

Group A - 12nos

Group B - 1no

Group C - 14nos

Group D - 14nos

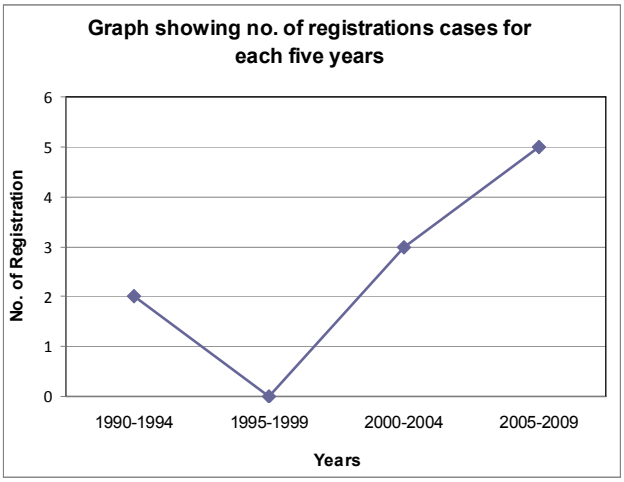
This reflects rampant contravention on various categories.

Table 4.3 Registration cases

S/NO	5 YEAR INTERVAL	NO OF BUILDING WITH REGISTRATION CASES
1.	1990 – 1994	2
2.	1995 – 1999	0
3.	2000 – 2004	3
4.	2005 – 2009	5

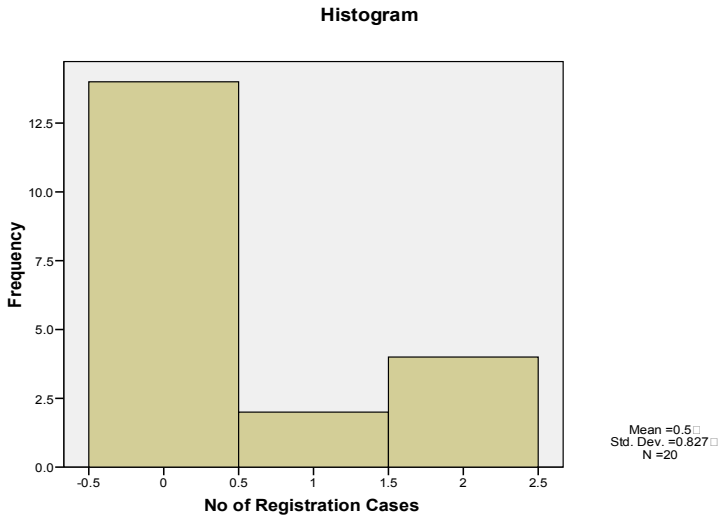
Source: Field work 2011

Fig. 4.8 Registration cases for each five years



Source: Field Work 2011

Fig.4.9 Registration cases for mean and standard deviation.



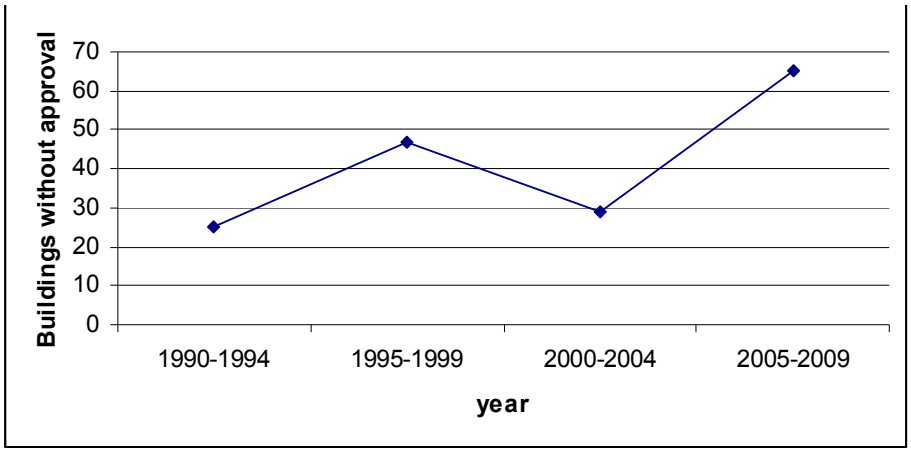
Source: Field Work 2012

Table 4.4 Start Building before approval

S/NO	5 YEAR INTERVAL	NO OF BUILDING WITHOUT APPROVAL
1.	1990 – 1994	25
2.	1995 – 1999	47
3.	2000 – 2004	29
4.	2005 – 2009	65

Source: Field work 2012

Fig. 4.10 Buildings without approval for each five years.



Source: Field work 2012

C. Compliance with contravention notices (Registration cases).

Trend: When reference is made to table 4.4, where only 10nos registration cases were treated while representing graphical presentation shows a fall from 2nos. cases in 1990 – '94 to 2020 in 1995 – 1999 while steady increase to 5 cases of compliance in 2005 – 2009. This reflects some level of compliance.

Fig. 4.11 Sample pictures from Sabon Gari, Kano



4.4 RESULT AND ANALYSIS OF FIELDWORK

The results of the data from survey undertaken will be presented and interpreted accordingly. The data from archives i.e. files for 20 years from KNUPDA in order to confirm whether there is contravention or not.

Similarly, the questionnaires divided into three, their analysis and their correlation be discussed.

4.5 DATA FROM ARCHIVES

The data collected from the Archives of KNUPDA for the areas considered under this study which are ten in number as far delimitation of the study area earlier highlighted. Below is the analysis of the data based on answering objective two notwithstanding the inference from pilot study.

4.6 DATA ANALYSIS

In order to have a picture of the situation in respect of areas under study (fig.4.5), information from 1990 – 2009 has a total 1348 applications.

Below is the table with computation of approval building plans and those given notices, which indicates buildings or developments undertaken without approval.

Table 4.5 Building Plan Approval and Notice for areas under study (1990-2009)

S/N	YEAR	NO. OF APPROVALS	NO.OF NOTICES (CASE WIH NO APPROVALS)	TOTAL
1	1990	19	43	62
2	1991	14	27	42
3	1992	23	13	35
4	1993	14	17	31
5	1994	18	22	40
6	1995	33	18	51
7	1996	17	11	28
8	1997	19	13	32
9	1998	20	14	34
10	1999	14	23	37
11	2000	29	24	53
12	2001	19	80	99
13	2002	63	29	93
14	2003	52	18	70
15	2004	72	31	103
16	2005	53	25	78
17	2006	46	15	61
18	2007	84	58	142
19	2008	102	52	154
20	2009	63	42	105
		Total = 773	Total = 575	Total = 1348

Source:

Authors field work 2012

From above data, the percentage of the two scenarios is:

1. Approved building plans in 20 years = 773/1348 = 57.3%
2. Number of notices served to defaulters in 20 years= 575/1348 = 100 = 42.7%

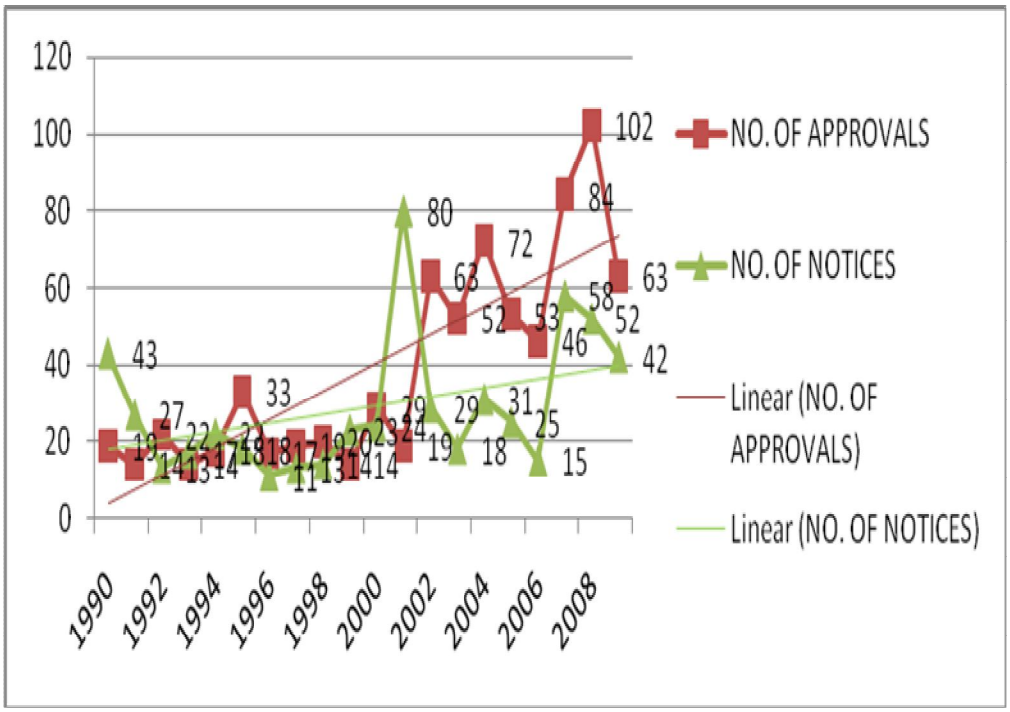


Fig. 4.12 Graph showing no. of approvals and notices served 1990-2009.

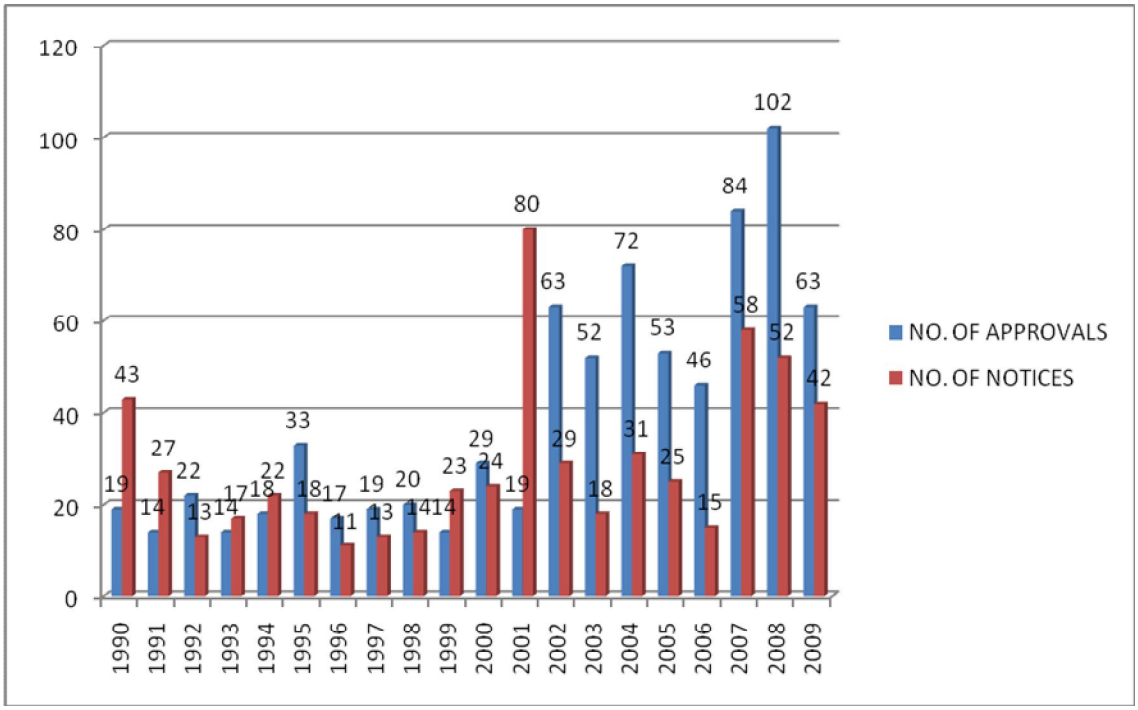


Fig. 4.13 Bar Chart showing number of buildings approved from 1990-2009.

Source: Author Field work 2011

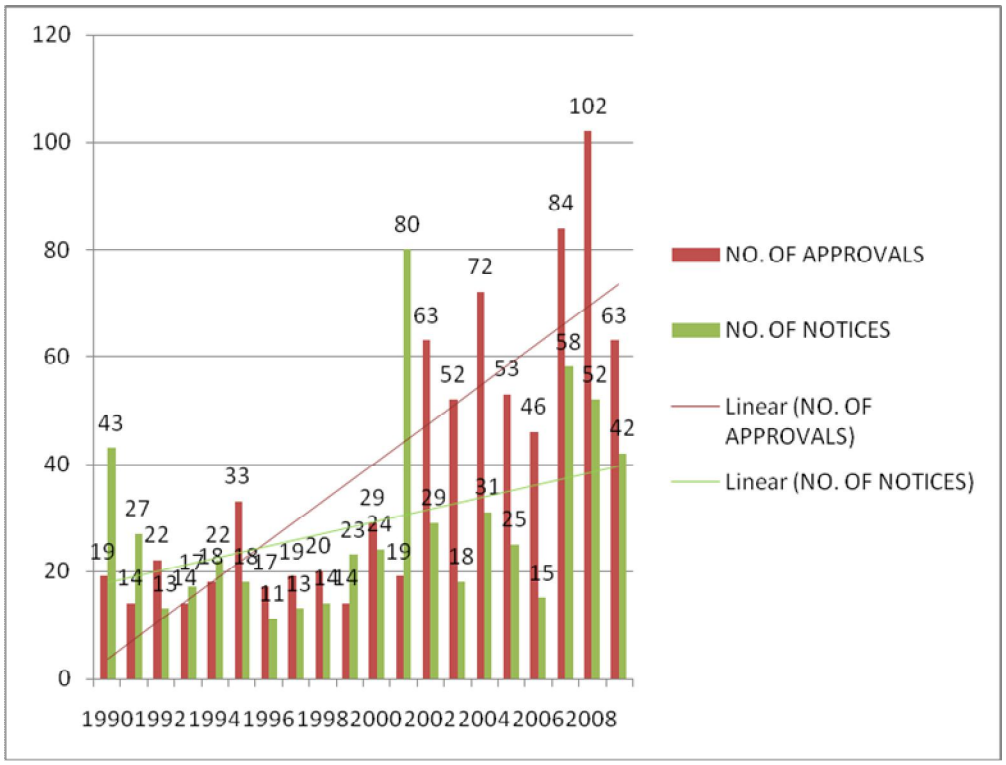


Fig. 4.14 Approval and notices

Source: Author Field work 2011

In addition, the comparative graph showing Notices and approvals (Fig 4.13) for twenty years indicated that increase in notices several increases the number of approvals. This implies that if the planning Agency increase its enforcement then there is increase in more compliance to seek for approval.

4.7 BASIS OF ANALYSIS

The importance of the survey Table 4.5 is to analyse it in order to provide some answers to questions so far adduced. It is in light of the foregoing therefore that the following will form the basis for same:

A. Building approvals in Area under study (1990 – 2009)

1. Trend – how can it be explained?
2. Total what does it reflect?

B. Contravention notice (Nature of the contravention)

1. Trend, - over the years, what can be observed?
2. Total – Group A – contravention before submission

Group B – deviation from approved drawings

Group C – deviation from landuse approval

4.8 COMPARATIVE ANALYSIS

Therefore if A + B is combined, it proffers comparative study is in terms of approval/contravention. Hence the comparative analysis will avail the following:-

i) Show that contravention is rampant

ii) Questionnaire is to consider reasons for this trend. Identify nature of contravention

iii). Effect of such contraventions on the elevations of the developments.

A. Building Approvals in areas under study (1990 – 2009)

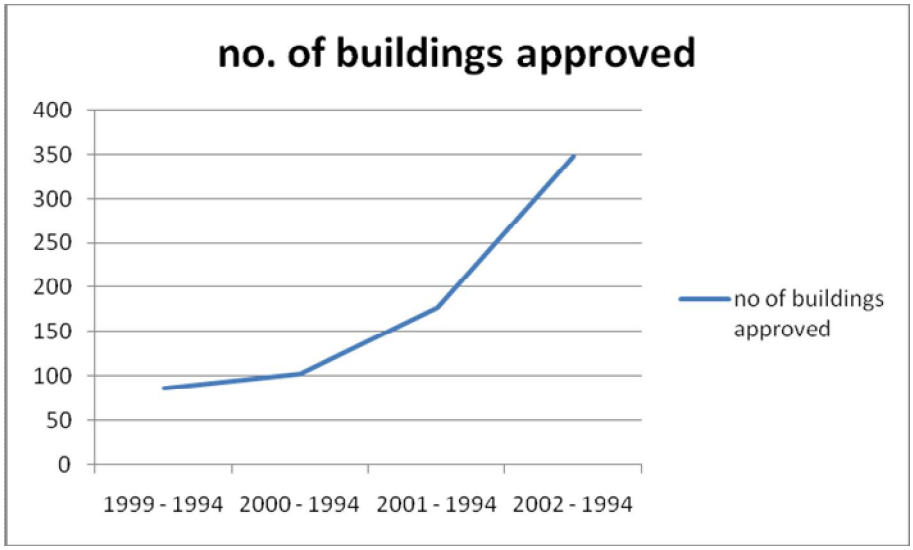
Trends: 1. It can be explained in terms of number of buildings approval between 1990 – 2009 which numbered 773 cases, as per Table 4.1, where the number of approvals fell down from 21 nos in 1990 – '94 to 9nos in 2000 – 2004. Iit suddenly increased to 16nos in 2005 – 2009. This reflects likely hood of the planning authority becoming more vigilant from2005-2009

Table 4.6 No. of approved building from 1990-2009

S/NO	5 YEAR INTERVAL	NO OF BUILDING APPROVED
1.	1990 – 1994	87
2.	1995 – 1999	103
3.	2000 – 2004	177
4.	2005 – 2009	348

Source: Field Work 2011

Graph.4.15 Number of buildings approvals five years each



Source: Field work 2012

B. Contravention Notice (Nature of contravention)

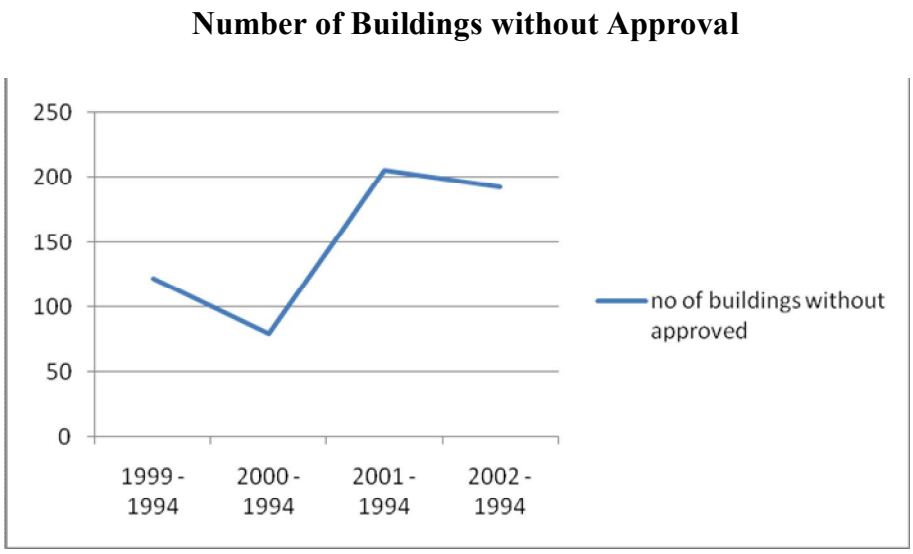
1. Trend – Over the years as per table 4.6, it was observed that there are 575 no. cases of notices served to developer in the selected areas between 1990 – 2009. Reference to Table 4.1. The graphical presentation shows a fall from 122 notices in 1990 – 1994 to 79 notices in 1995 – 1999. Then a sudden increase to 182 and 192 in both 2000 – 2004 and 2005 – 2009 respectively.

Table 4.7 No of building without approval

S/NO	5 YEAR INTERVAL	NO OF BUILDING WITHOUT APPROVAL
1.	1990 – 1994	122
2.	1995 – 1999	79
3.	2000 – 2004	205
4.	2005 – 2009	192

Source: Field work 2011

Graph. 4.16 No of building without approval



Source: Field Work 2011

2. Trend other groups contravention could be as a result of:-

Group A) Contravention before submission.

Group B) deviation from approved drawings.

Group C) deviation from landuse approval.

4.9 THE QUESTIONNAIRES

In order to respond to the need of this study, three groups have been considered which were the Owners/Occupants, Principal Officers of KNUPDA and Consultants doing business with KNUPDA.

Further, these three groups have direct or in direct link with physical development in Kano as they all have cause to interpret actions and reactions of same.

4.10 BASIS OF ANALYSIS OF RESPONSES FROM OWNERS/OCCUPANTS

At this stage, the summary of parameters considered in this questionnaire were when was the building constructed, building plan approval, construction of proposed building, design process, contravention of development and impact of contravention of Development Control Regulation: (Appendix I).

The questionnaires administered were 700 while respondents were 410 and this implies 58.57% respondents.

4.11 BASIS OF ANALYSIS OF RESPONSES FROM PRINCIPAL OFFICER OF KNUPDA

The summary of parameters considered were the organization (KNUPDA) working methods of the Agency; responses to laws and regulations; responses to Landuse zoning and regulations; responses Development Control Methods and Impact of contraventions of Development Control Regulation: (Appendix II).

The administered questionnaires were 25 while respondents were 18 which implies 72% response.

4.12 BASIS OF ANALYSIS OF RESPONSES FROM CONSULTANTS

The consultants are the architects submitting drawing for purpose of building development. The summary of parameter used here were the practice of the consult, building plan approval, construction of approved building plan, design process, contravention of development control regulations and impact of contravention of development control Regulation (Appendix III)

The questionnaires administered were 25 while respondents were 17 which imply 68% response.

4.13 ANALYSIS OF DATA

The questionnaires were evaluate using statistical package for social sciences (SPSS) was used in all the three groups of questionnaires.

Important parameters required here is the impact of contravention on development control regulations on Architecture, Infrastructure and services.

Frequency tables were produced and Histograms showing percentages of various topical items of the questionnaires.

The general nature of contraventions identified with this percentage are setback not adequate (25.30%), Land use does not confirm to approved Land use (12.41%), Parking spaces not enough (8.1%), Building Plan not approved (13.4%), Plot development (3.6%) ratio not as recommended (11%) and others (1.7%) those without conclusive with 24.5%.

NATURE OF CONTRAVENTIONS

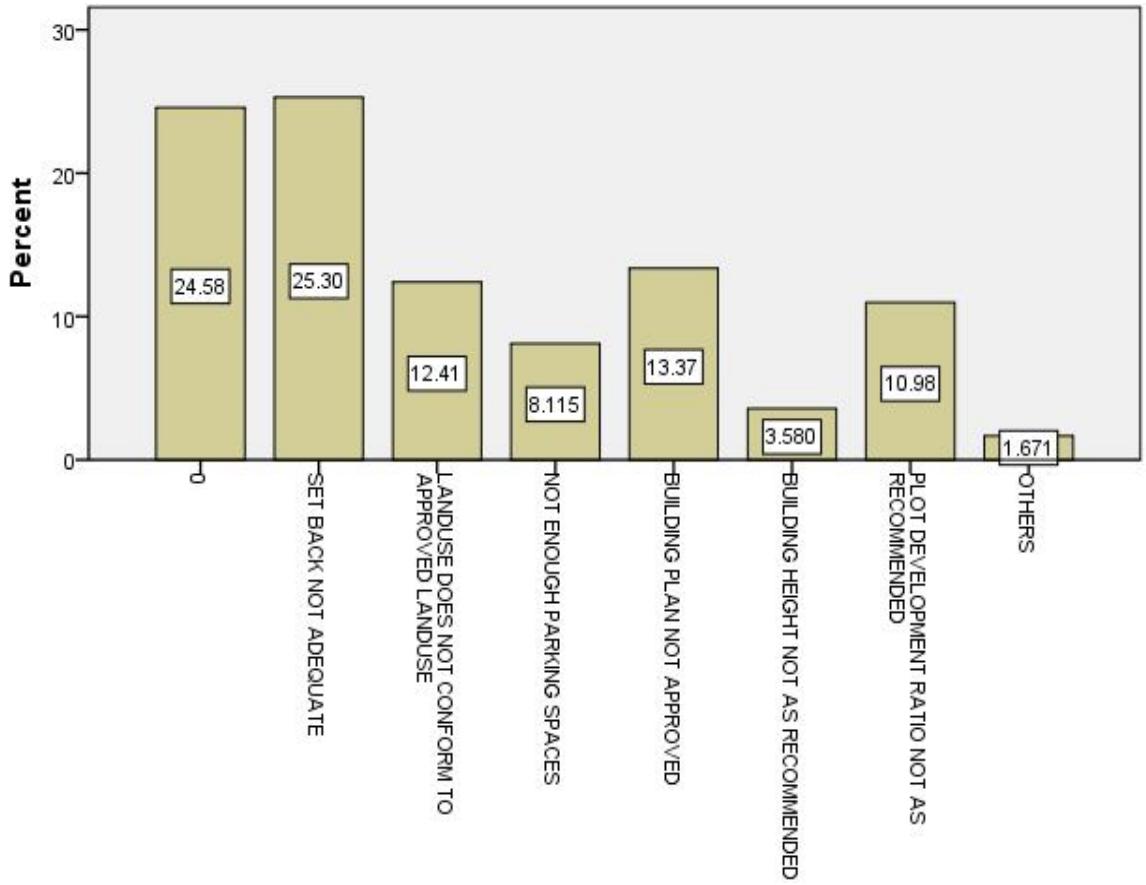


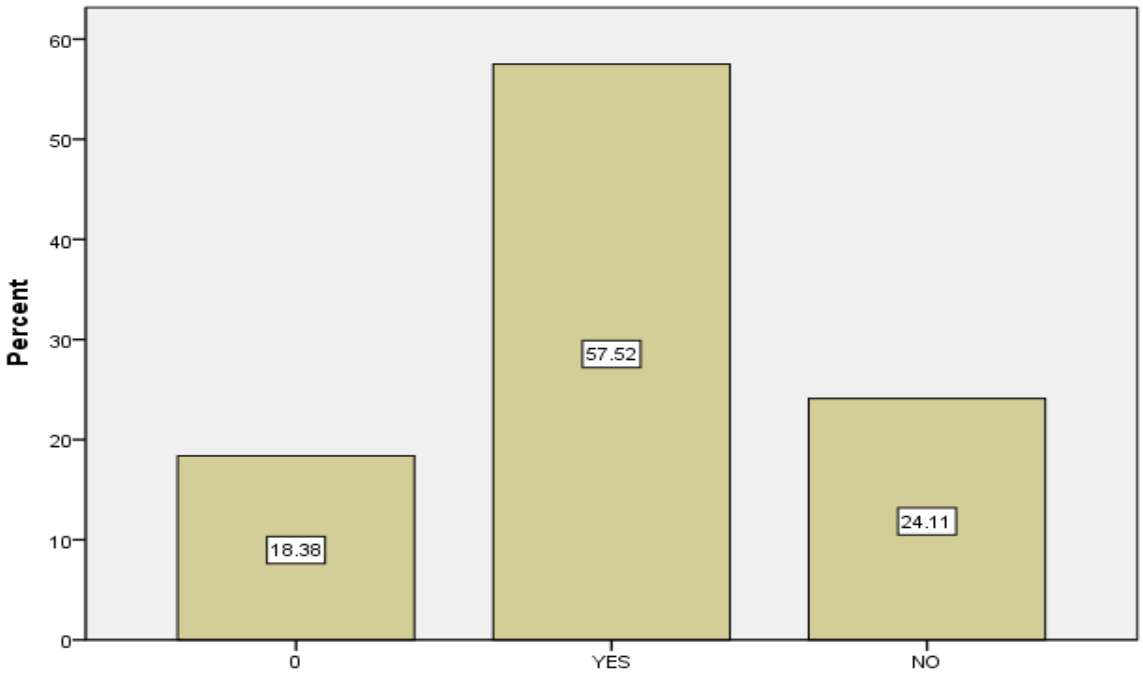
Fig 4.17 Nature of Contravention
Source: Field work 2011

This therefore confirms that setback is on the high size while building not approved land use not in conformity and plot development ratio not as recommended are between 11% - 15%. These are then followed by not enough parking space 8% while building height 3.6% and finally open space 1.7%.

This implies that setback is the contravention then is more prominent while the lee areas are building height and others.

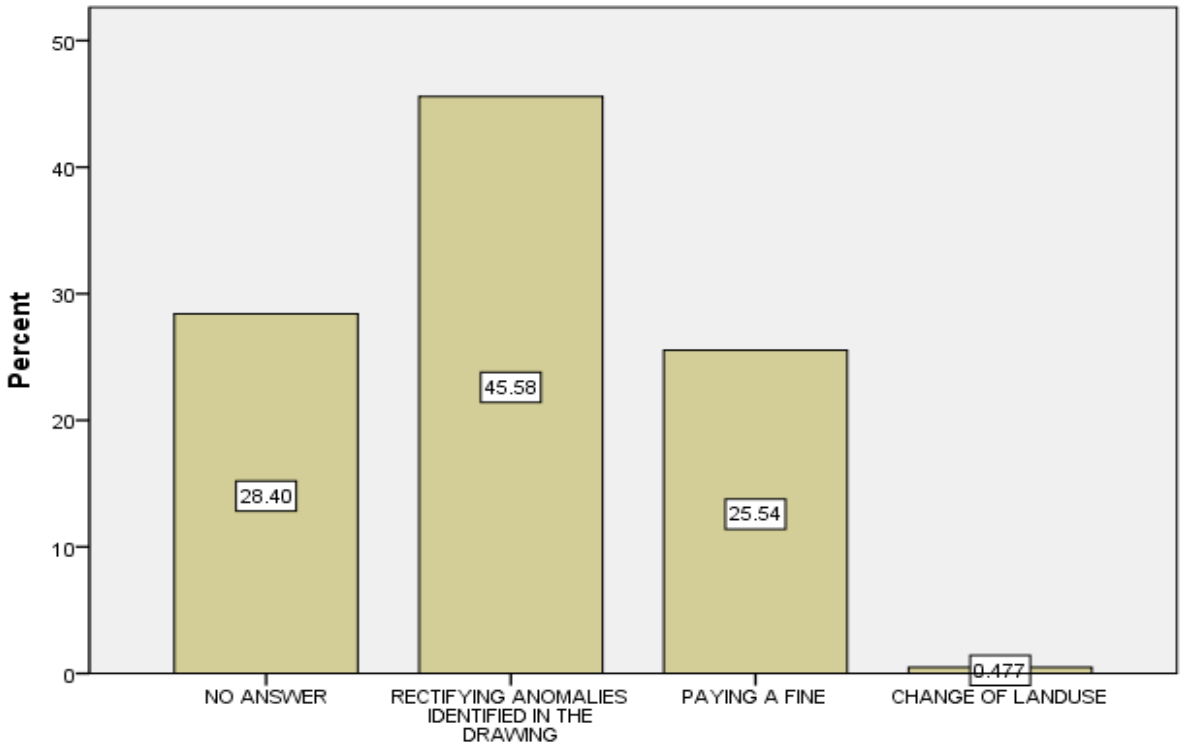
Another important aspect is professional advice in solving contravention where those sough such advice were found to be 57.52% and those with no answers were 18.4%. This implies that it is professional advice is sought more often then not after community the act. (Fig. 4.16)

Fig. 4.18. Professional Advice on resolving contravention
Source: Author Field work 2011



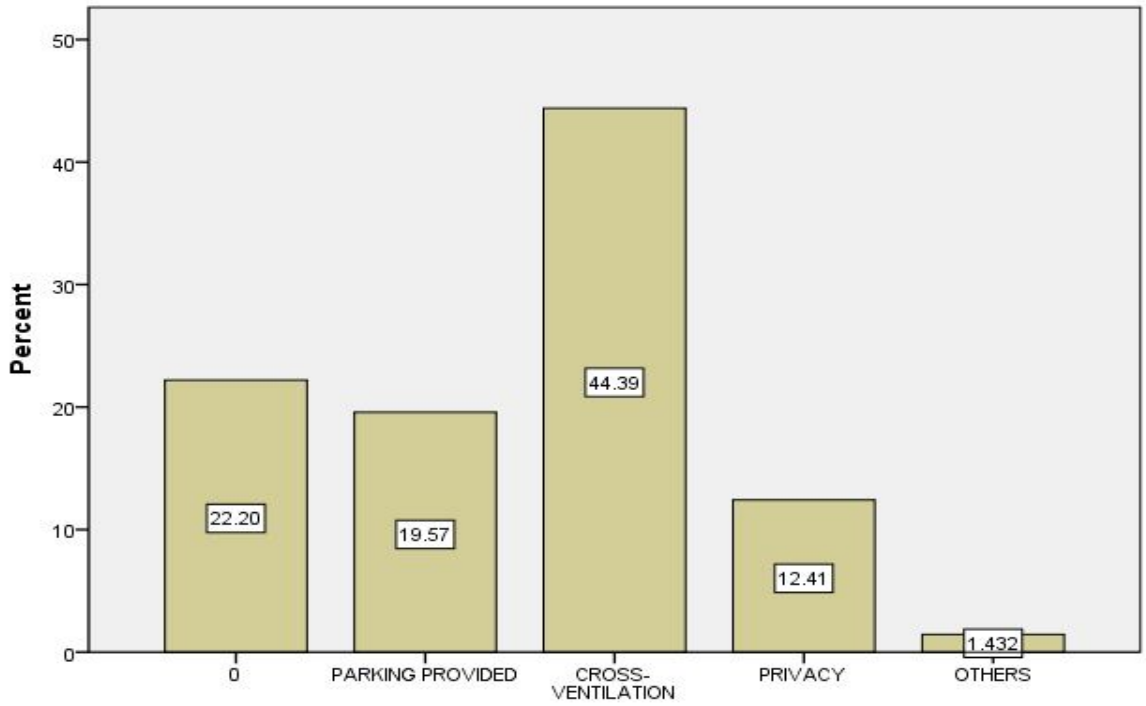
Similarly, the method used in solving the contravention issues is through rectify anomalies found in drawings with 45.58% and followed by paying fire 25.54% (fig. 4.18).

Fig 4.19 How Issue was resolved
Source: Field work 2011



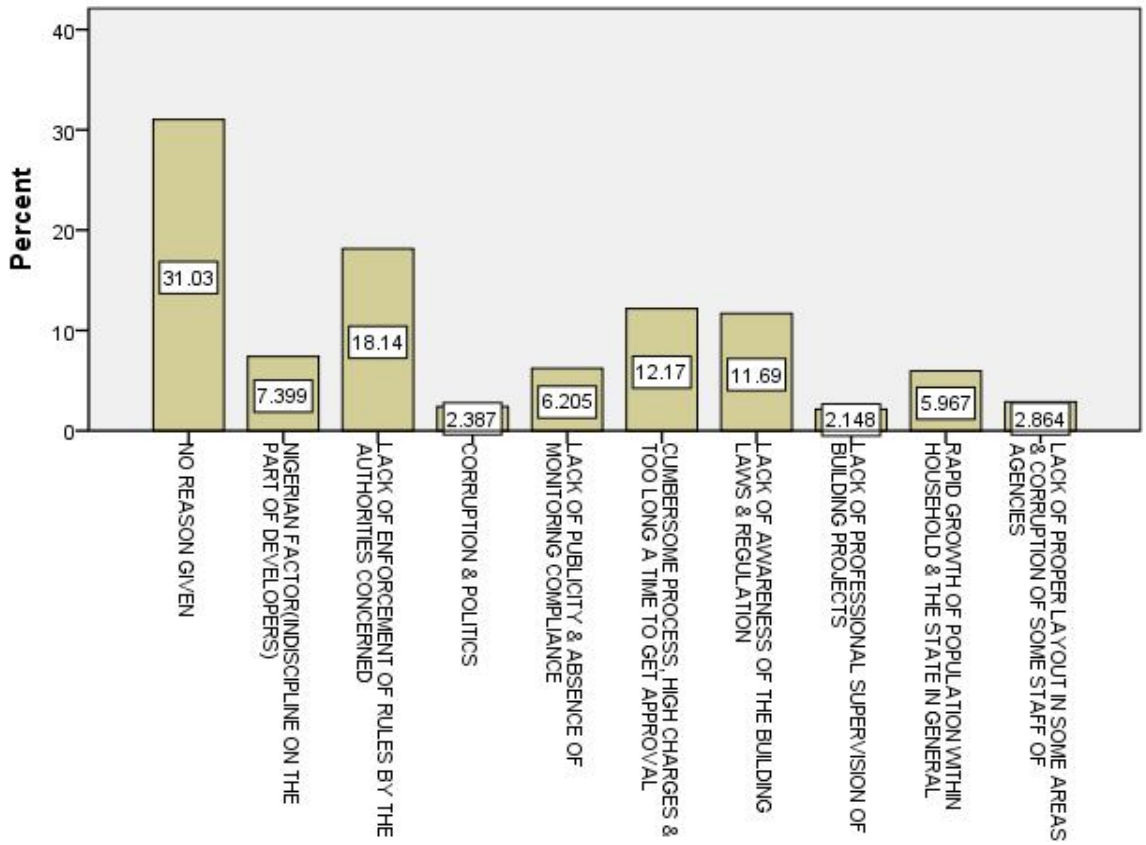
Furthermore, the impact of contravention upon cross – ventilation with 44.39% followed by parking provided with 19.57% and privacy accounts for 12.41%. Other account for 1.43% and those with is answer were 22.20%. The implication here is that cross – ventilation is the highest affect by contravention, followed by parking and finally privacy.

Fig 4.20. Impact contravention on Architecture
Source: Field work 2011



However, reasons adduced for contravention from the questionnaires, ten in number with no reasons given taking the highest (31.83%). Others in the rage of 18% - 11% are lack of enforcement by the Agency (18.14%); cumbersome process, high charge taking too long to obtain approval (12.17%) and lack of awareness of the building laws and regulation (11.89%).

Fig 4.21. Reasons for contravention
Source: Field work 2011



Others are between 7% - 5% such as Nigerian factor, indiscipline on the part of developers (7.35%), lack of publicity and absence of monitoring compliance (6.20%); Rapid growth of population within household and the state in general (5.96%).

Those below 5% were lack of proper layout in some areas and corruption of some staff of Agencies (2.864%); Corruption and polities (2.387%); and lack of professional supervision of building projects (2.148%). (Fig. 4.20).

Therefore based on the foregoing, the aspect of lack of enforcement, cumbersome process of obtaining approval and lack of awareness have the highest percentage followed by Nigerian factor, lack of publicity and Rapid rate of population.

Finally, those were least percentage are lack of proper layout/corruption of some staff of the Agency, corruption and polities and lack of professional supervision of building projects.

4.14 COMPARATIVE ANALYSIS

At this junction, consideration was on combining all the three questionnaires to come – up with summary of the responses and justification of the sample size using statistical power analysis.

It is to be noted that justification of sample size is important in order to knows the variability inherent in the data and how to ascertain the results or conclusion.

A statistical power analysis was used here, where it can be retrospective (post doc) or prospective (a prior). The latter is used to determine required sample size to achieve target statistical power while the former computes the statistical power of a test given sample size and effect size.

In this study, post hoc statistical power of the test and sample size is considered Using G^x power software which is used to determine same. The plots (fig 4.10) show the

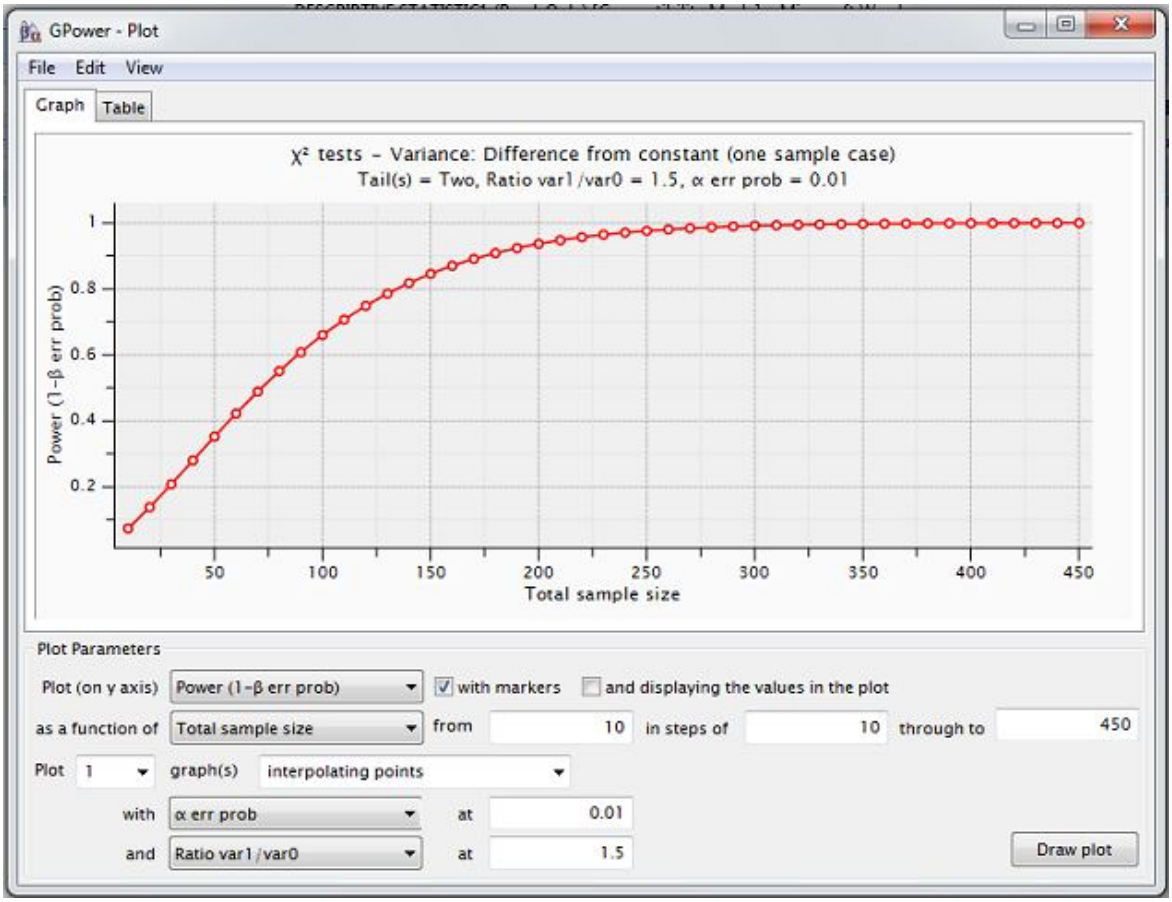


Fig.4.22. Showing variance differences from constants
Source: Field work 2011

sample size is adequate to produce power of 0.99 which will above the accepted threshold of 0.8 at significance level of 0.05 and 0.01 respectively.

The total respondents from questionnaire as per (Table 4.8) frequency table are

RESPONDENT CATEGORY

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	OWNERS/OCCUPANTS	419	91.5	91.5	91.5
	PRINCIPAL OFFICERS	22	4.8	4.8	96.3
	CONSULTANTS	17	3.7	3.7	100.0
	Total	458	100.0	100.0	

Table 4.8. Respondent category
Source: Field work 2011

458. The questionnaire on owner/occupants has frequency of 419 (91.5%), principal officers of KNUPDA have 22 (4.8%) and consultants 17 (3.7%) and bar chart (Fig.4.22) clearly shows the picture.

Bar Chart

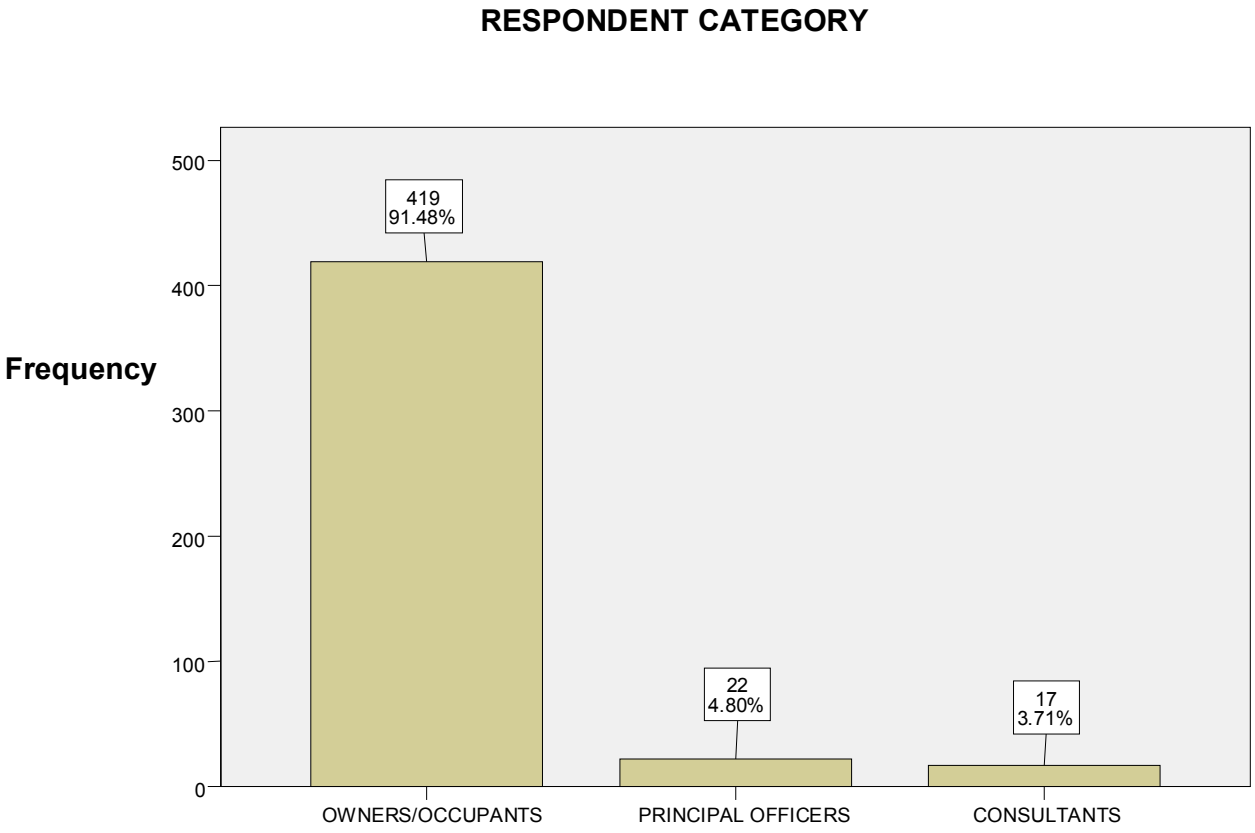


Fig. 4.23. showing respondent categories
Source: Field work 2011

Similarly reasons adduced for contravention based on the three (Table 4.4)

REASONS ADDUCED FOR CONTRAVENTION
Table 4.9 showing reasons adduced for contravention
Source: Field work 2011

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	NO REASON GIVEN	136	29.7	29.7	29.7
	NIGERIAN FACTOR(INDISCIPLINE ON THE PART OF DEVELOPERS)	35	7.6	7.6	37.3
	LACK OF ENFORCEMENT OF RULES BY THE AUTHORITIES CONCERNED	87	19.0	19.0	56.3
	CORRUPTION & POLITICS	15	3.3	3.3	59.6
	LACK OF PUBLICITY & ABSENCE OF MONITORING COMPLIANCE	28	6.1	6.1	65.7
	CUMBERSOME PROCESS, HIGH CHARGES & TOO LONG A TIME TO GET APPROVAL	52	11.4	11.4	77.1
	LACK OF AWARENESS OF THE BUILDING LAWS & REGULATION	54	11.8	11.8	88.9
	LACK OF PROFESSIONAL SUPERVISION OF BUILDING PROJECTS	10	2.2	2.2	91.0
	RAPID GROWTH OF POPULATION WITHIN HOUSEHOLD & THE STATE IN GENERAL	28	6.1	6.1	97.2
	LACK OF PROPER LAYOUT IN SOME AREAS & CORRUPTION OF SOME STAFF OF AGENCIES	13	2.8	2.8	100.0
	Total	458	100.0	100.0	

Questionnaires are as per table (Table 4.9) and bar chart (Fig. 4.22) are average to 10 number. Those with no reason 136 (28.7%), Nigerian sector or indiscipline on the part of development 35 (7.6%), lack of enforcement of rules by the authorities 87 (19%), corruption polities 15 (3.3%) and lack of publicity and absence of monitoring compliance 28 (6.61%).

Others are cumbersome process, high charges and too long time to obtain approval 52 (11.4%), lack of awareness of building laws and regulations 54 (11.8%), lack of professional

supervision of building projects 10 (2.2%), rapid growth of population within Household and the state in general 28 (6.1%) and lack of proper layout in some areas and corruption of some staff of the Agency 13 (2.8%).

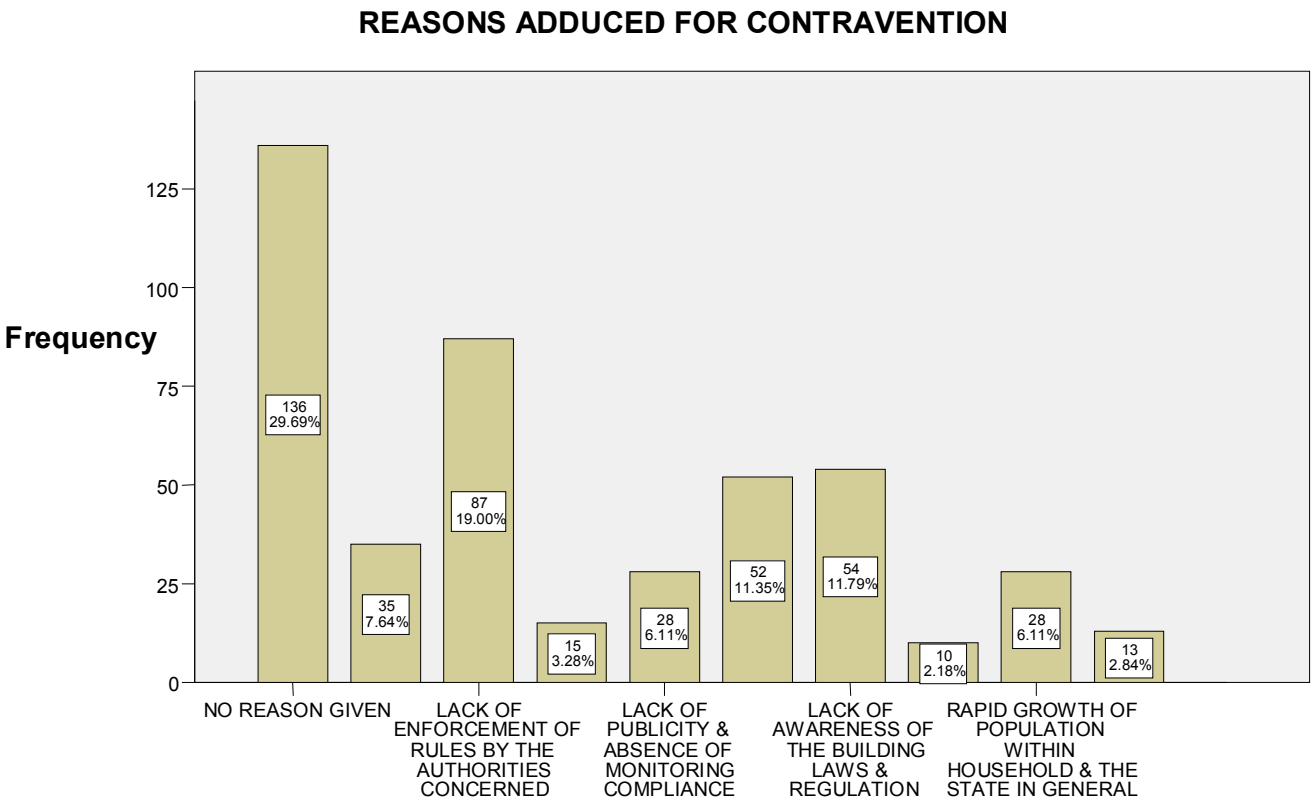


Fig 4.24. Showing reasons adduced for contravention
Source: Field work 2011

4.15 Detail of Specific Contravention Cases and Assessment of Impact of Contraventions

From the archival method, also, a number of site reports were extracted where some details of drawings fig 4.24 to fig 4.45 from files of KNUPDA and total up to 22

numbers. Names and addresses have been deleted for ethical reasons but locations have been provided and numbering method used.

Similarly more specific aspect in terms of planning, architecture and services need to be observed for each location in order to come-up with the types of contraventions observed. The aspect of planning will dovetail into approved nature of development while architecture will be in terms of setback, ventilation, distance between two buildings, development ratio and parking. Similarly services will be in terms of soak away, septic tank and drainages.

4.16 DETAIL CONSIDERATION OF SPECIFIC CASES.

In the case of the detailed study of specific contravention cases, consideration is given to the following:

i. Non submission of drawing at all and no action taken
ii. Non submission of drawings but later same was made and approved
iii. Regularization
iv. Extension to approved drawings and
v. Change of land use
vi. Floor area

The selection of these cases was based on available documents, spread in the areas considered and nature of contravention.

Case No 1. This case is in Dorayi Babba and has c of o with layout no TP/UDB/172, along BUK/Gwarzo Road, Dala L.G., The drawing as per (Fig 4.24.) was at lintel level and prosecuted in 2004 and no action was taken After the prosecution. Contravention in this case was largely architectural in term of development ratio", setback and parking. While there is no space for services (i.e. soak away and septic tank.)

The contravention in this case will have effect on the architecture in terms of privacy with respect to the development next door so also in case of fire due to set back, over development and equally the parking. Also quality of life will be affected due to floor area no according to provisions of building regulations.

Similarly the environment will be affected due to over development while utilities such electricity and water will be affected as piping work will be difficult while services such as soak away at septic tank spaces are almost impossible to be attained where the likelihood will be at the frontage of the development.

This will inevitably affect movement, services or utilities along the road and finally affect the road reservation.

Therefore this will affect in general the quality of life of occupants in terms of services provided, so also in case of fire, it is difficult for fire engine to access and likelihood of affecting development next door.

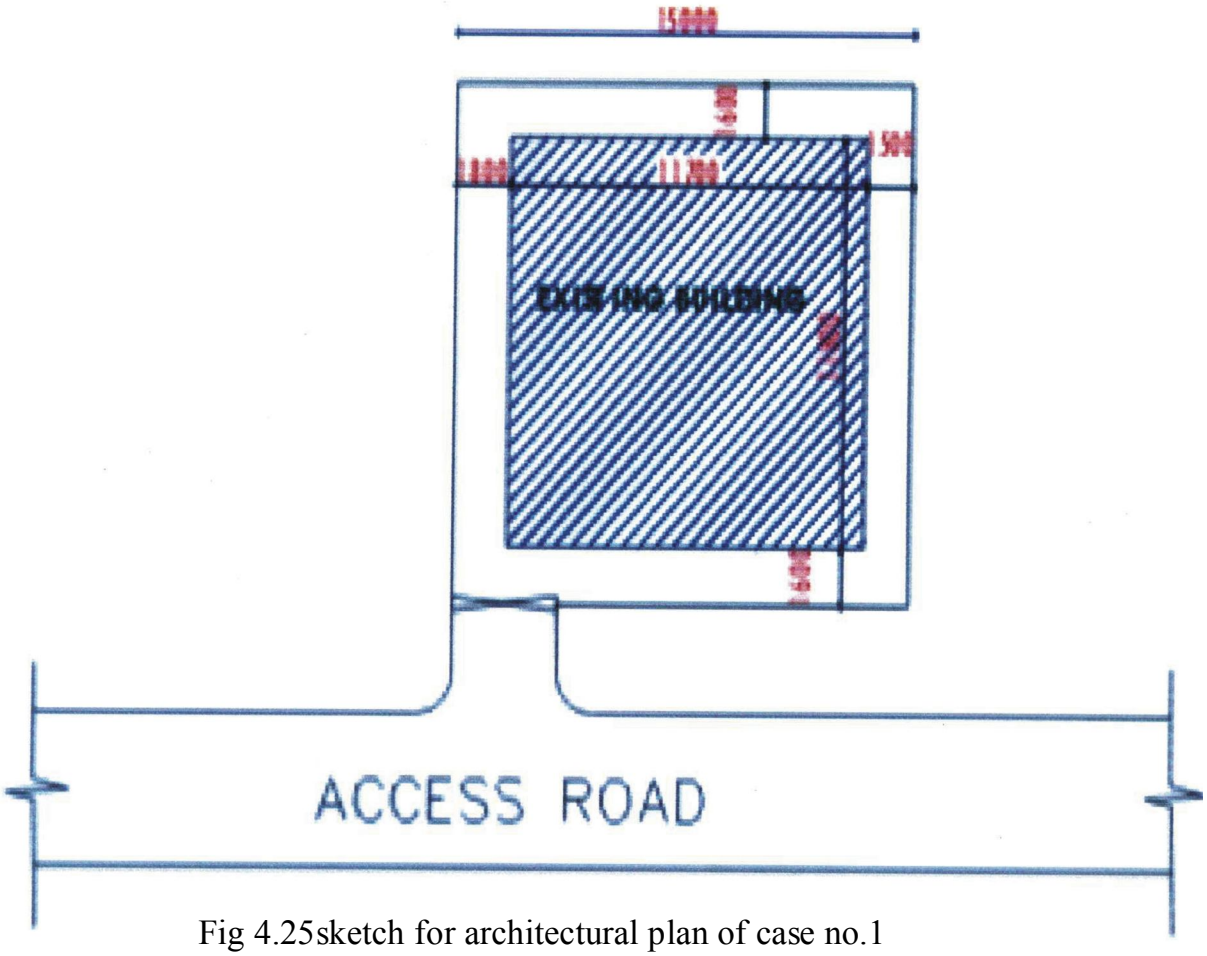


Fig 4.25sketch for architectural plan of case no.1

Case No. 2 This is a case where a boys development at Naibawa, plot No 521 (TP/UDB/98A) with Tarauni Local Government papers. The drawing as per (fig 4.26) was at four course level and prosecuted in the year 2000 without any action at later date. The basic contravention here is in terms of setback provided which will consequently affect the next development in case of fire and in terms of privacy.

As there is remaining space, and notice was served to the developer, there is likelihood that the failure to keep to standard and may be under control.

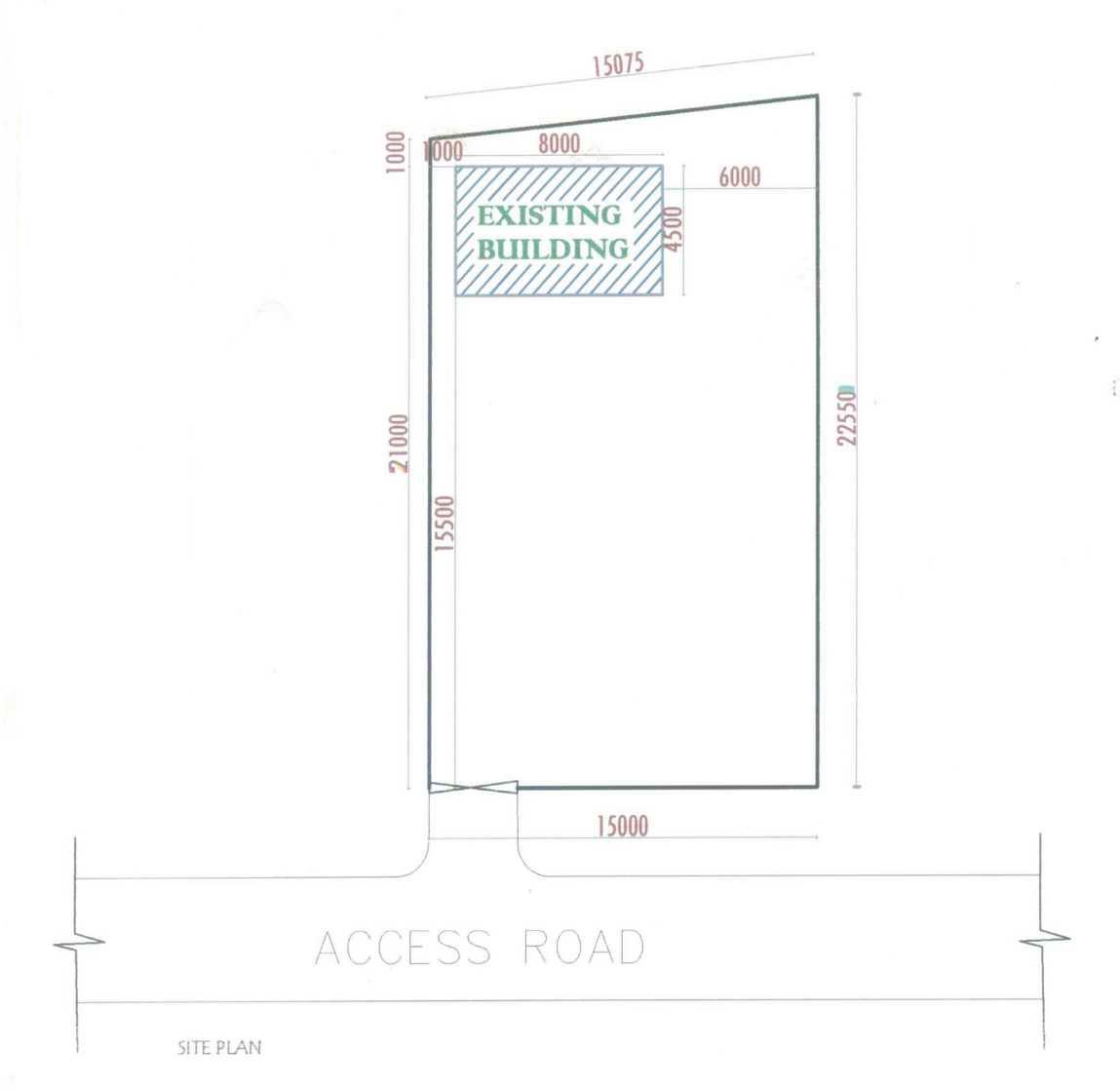
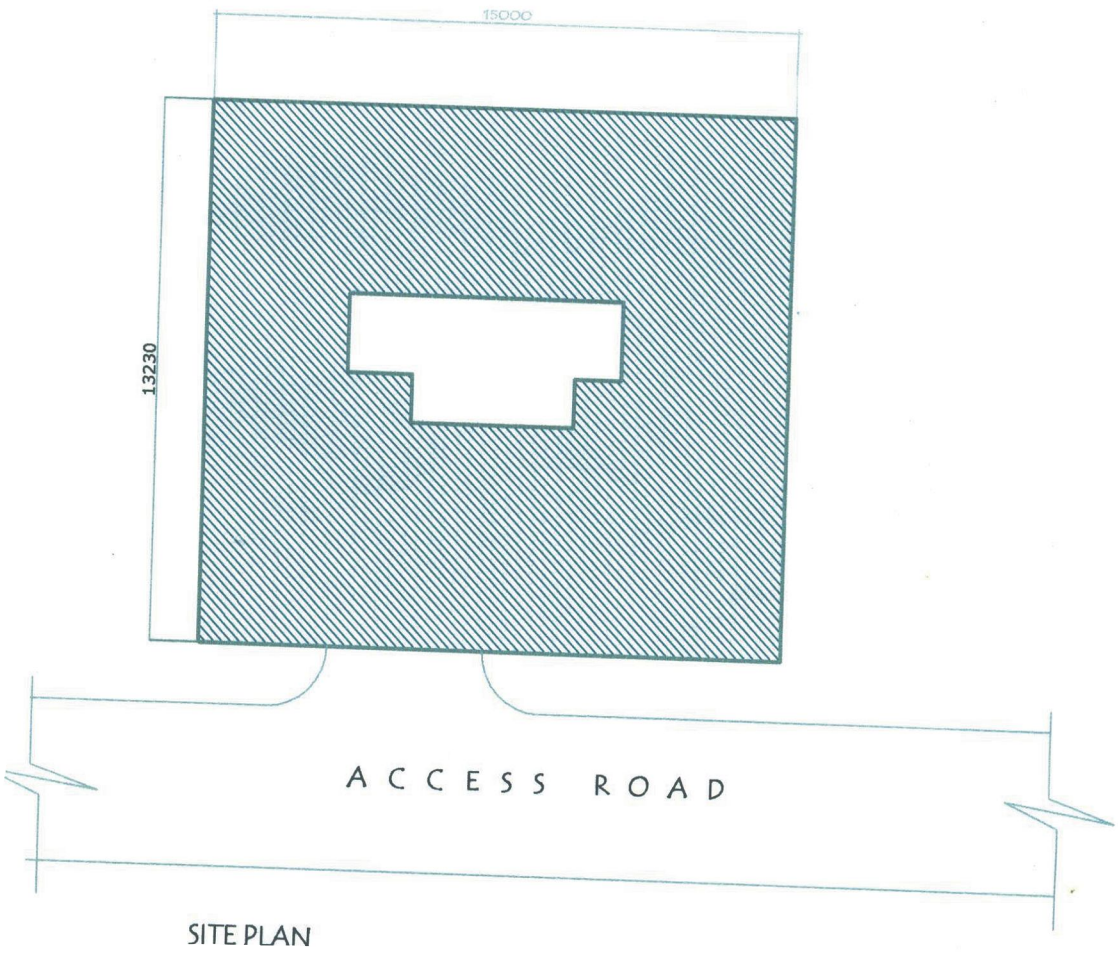
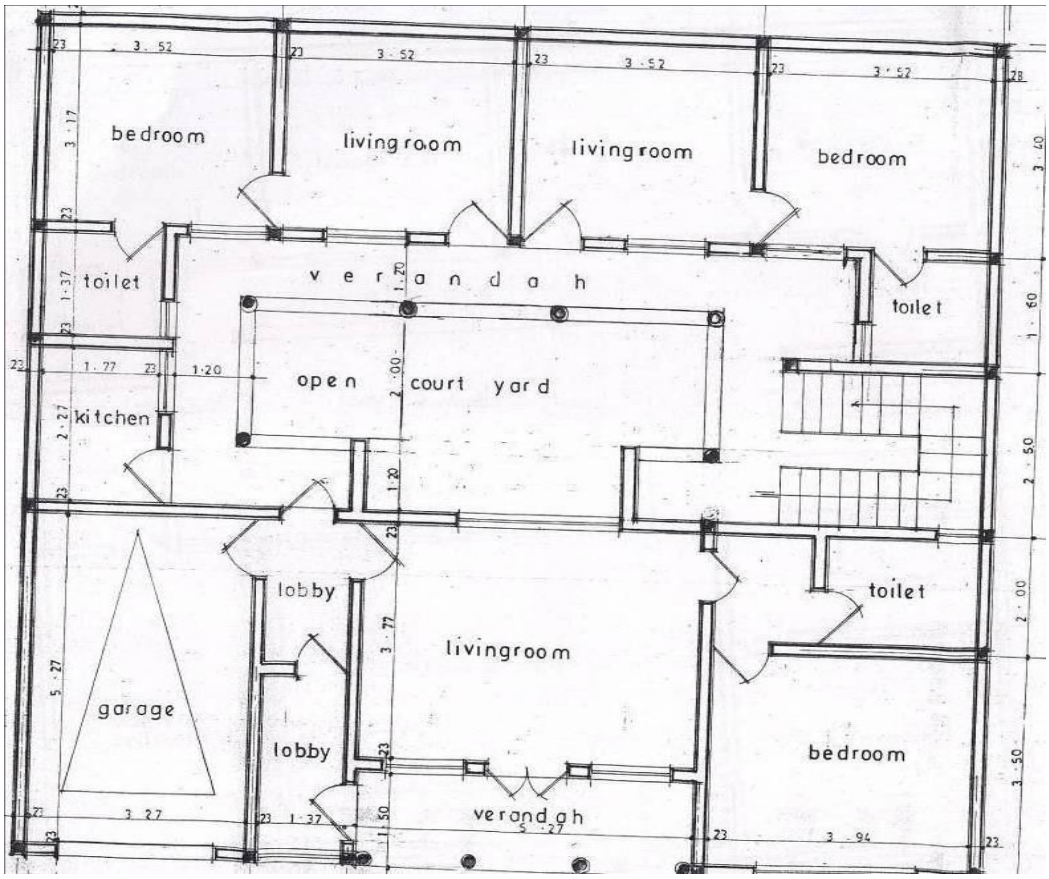


Fig 4.26 Showing sketch site plan of case 2

Case No. 3: This is a case at old Hausawa in tarauni Local Government with L.G. papers. Drawings were provided after prosecution but no action at later date. (Fig. 4.27)



SITE PLAN



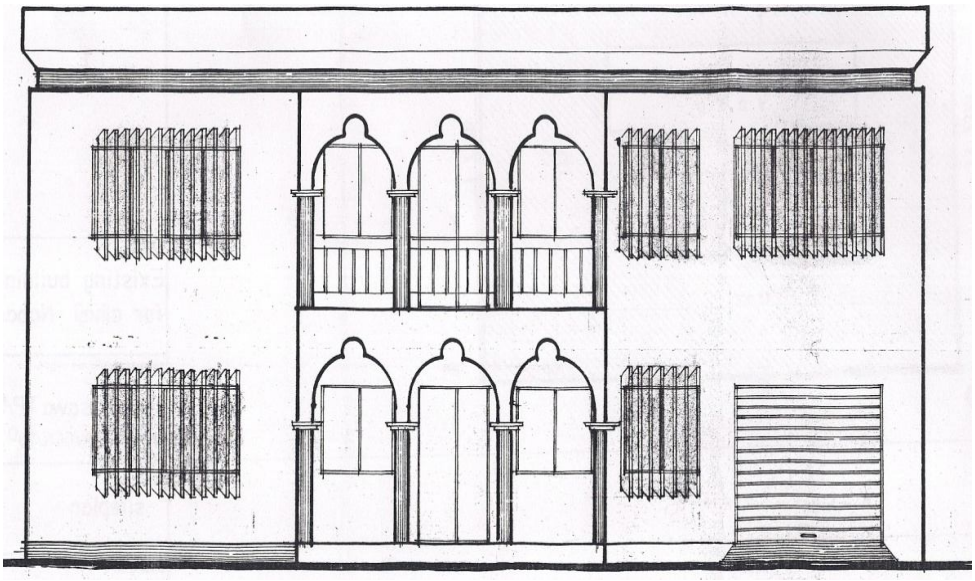


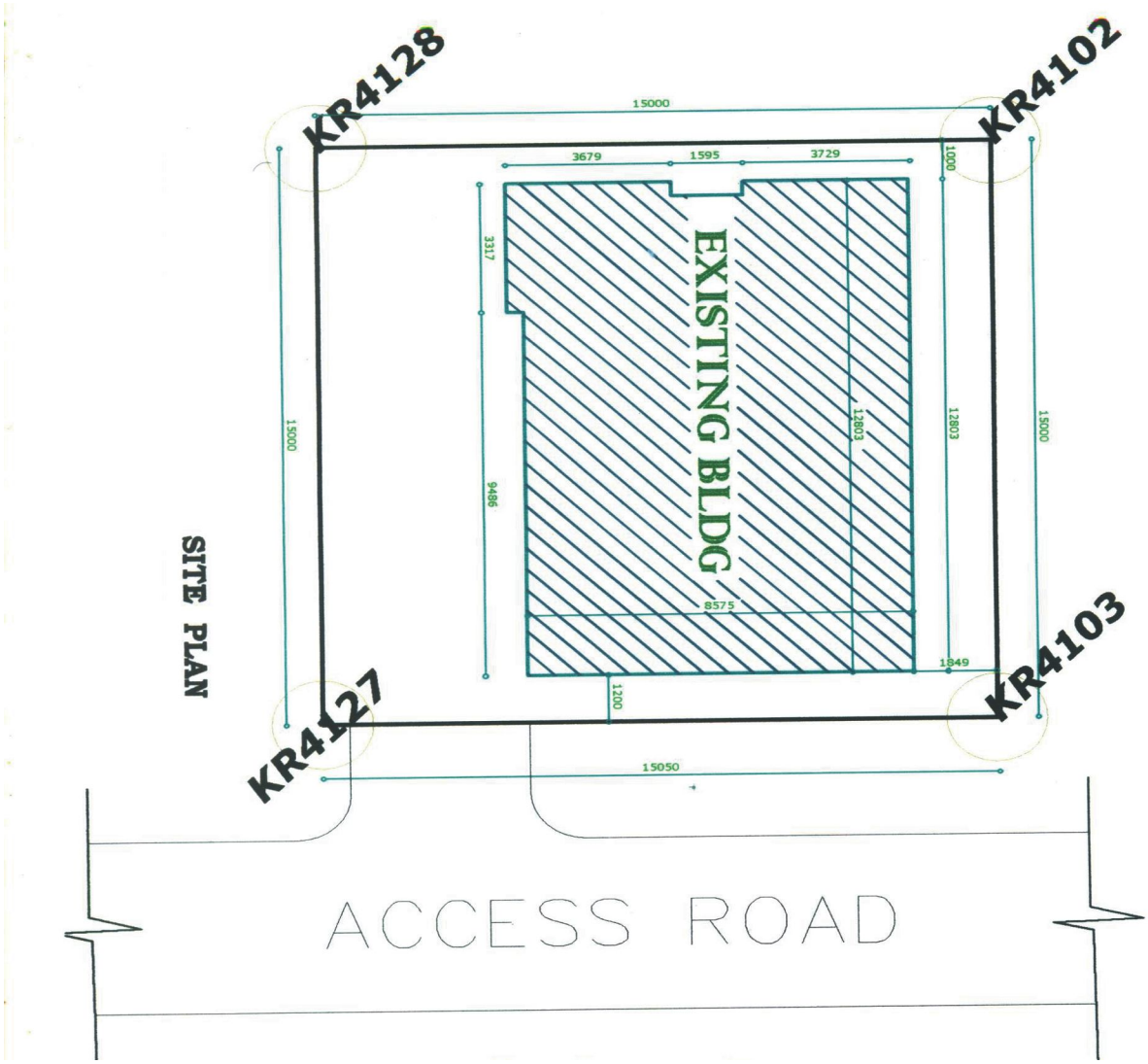
Fig 4.27 Showing sketches of architectural plan of case 3

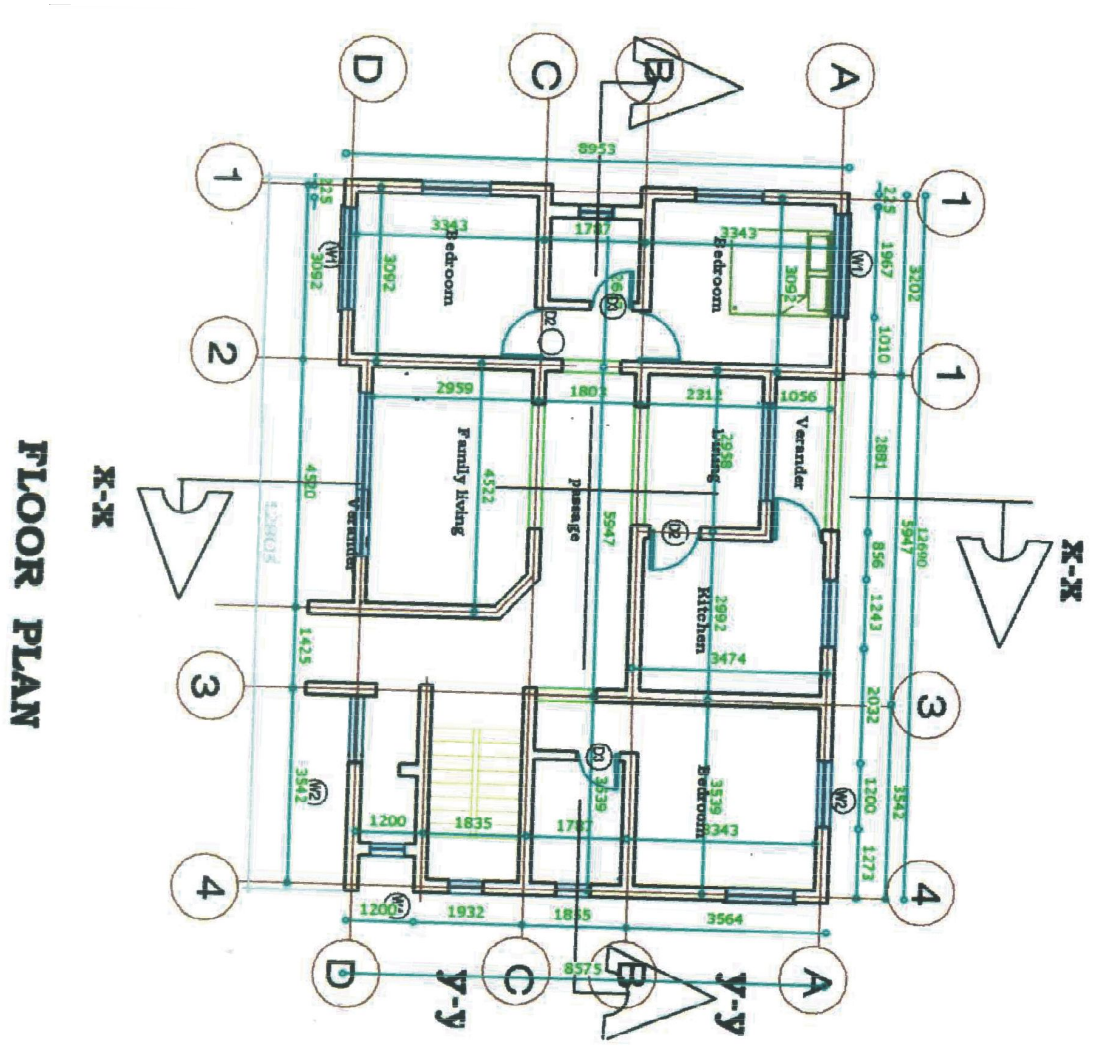
The development was completed with no set-back left, no cross-ventilation, development ratio above standard and no space for services.

The consequences of this development will border on safety in case of fire, lack of ventilation will affect quality and healthy life of occupants, and the environment will be affected through over usage of the utilities services will likely be provided at the frontage i.e. on the road reservation hence will impede movement and utilities to be provided. This will in summary affect the general development pattern in the area hence affecting the general view of the facades.

Case No. 4: This case is Dorayi Babba along BUK/Gwarzo road plot 1345 (TP/UDB/172) with certificate of occupancy and prosecuted in the year 2007.

Drawing were forwarded (Fig. 4.28) but no action taken after as it was queried. Set backs were not observed as per standard of the authority, there is no proper space for services.


KR4128
KR4102
KR4103
KR4127
15000
3679
1595
3729
1000
3317
EXISTING BLDG
12803
12803
15000
15000
9486
8575
1849
1200
15050
SITE PLAN
ACCESS ROAD


FLOOR PLAN
X-X
X-X
y-y
y-y
A
B
C
D
1
2
3
4
Bedroom
Bedroom
Family living
Passage
Dining
Verander
Verander
Kitchen
Bedroom
8953
8575
3564
3474
3343
3343
2959
1802
2312
1056
4522
4900
3092
3092
1967
1010
2881
1243
856
2032
1200
1273
1835
1932
1200
1425
1425



REAR VIEW

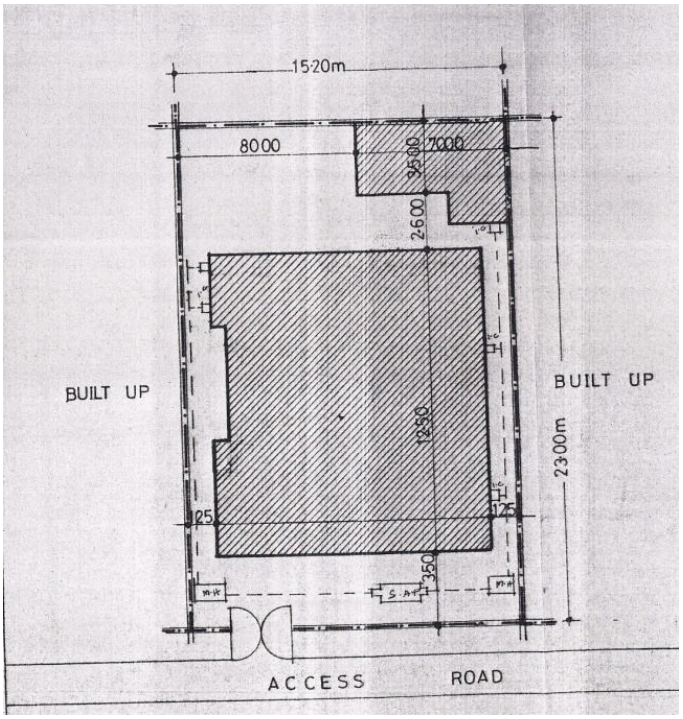
Fig 4.28 Showing sketches of architectural plan of case 4

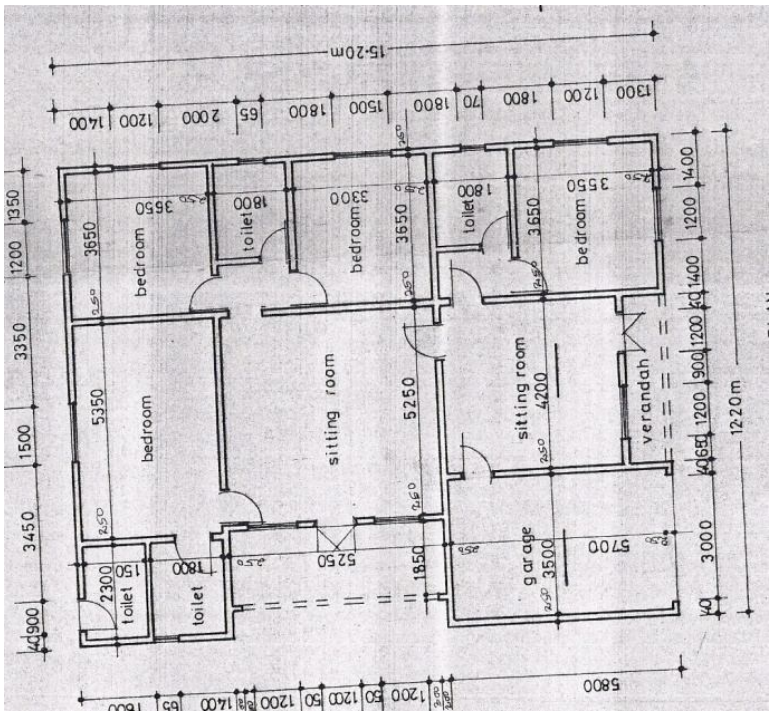
Effect of contravention here will be in case of fire and soak away and septic tank may likely be provided on road reservation which will affect the architecture and the general environment, utilities and services will be affected as spaces have been compromised.

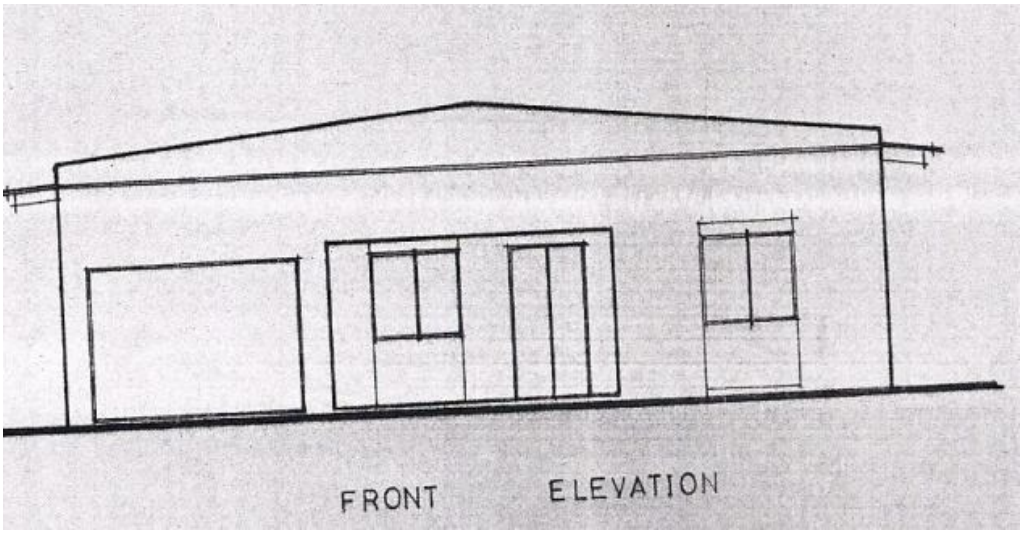
Case No 5: This is case at Hausawa in Tarauni Local Government with certificate of occupancy and was prosecuted. Drawings (Fig. 4.29) were submitted to the Authority but not action taken after the submission as it was queried where set back was not observed as per standard and cross ventilation too. Similarly distance between two buildings of at least 3m was not observed.

Effect of contravention will be in terms of quality and as in the tropics, cross -ventilation is needed and that is among the authorities' regulations for

approval. In case of fire, it will be easily transferred to the next development so also effecting use of fire engine.







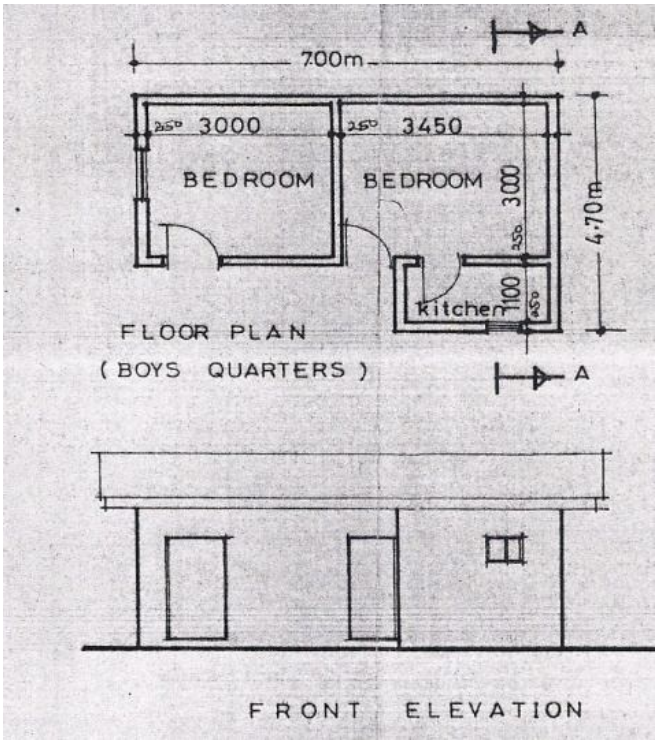
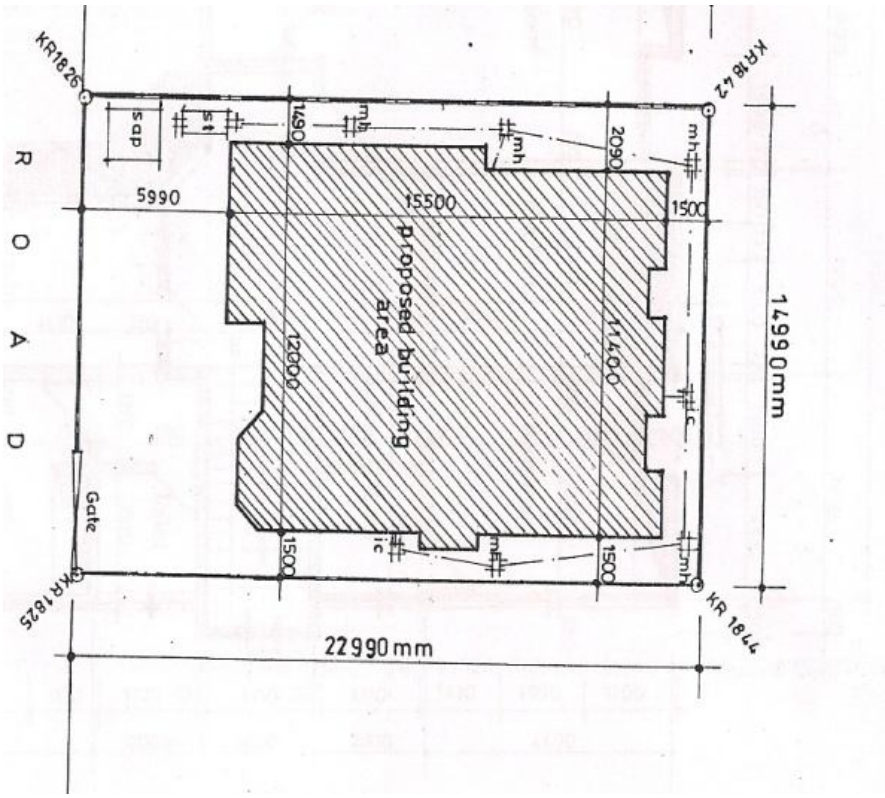
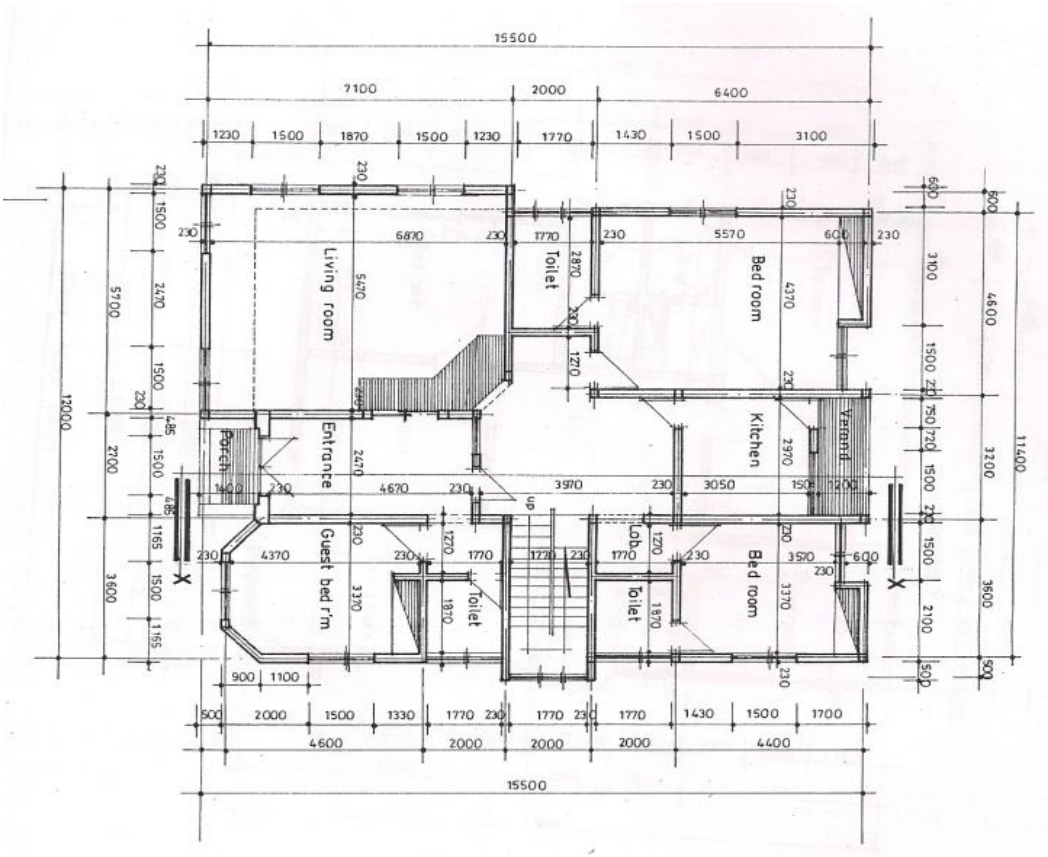


Fig 4.29 Showing sketches of architectural plan of case 5

Case No. 6*:* This case is at Dorayi Babba, Dala Local Government Area along BUK/Gwarzo Road with residential certificate of occupancy. The development was prosecuted and drawings submitted with no action taken later due to query not responded to by the defaulter (Fig. 4.30).


KR1826
KR1842
KR 1825
KR 1844
ROAD
sap
st
mh
ic
5990
1490
2090
15500
1500
proposed building area
12000
11400
14990mm
Gate
22990 mm


15500
7100
2000
6400
Living room
Toilet
Bed room
Entrance
Kitchen
Guest bed rm
Toilet
Toilet
Bed room
up
X
X
12000
11600

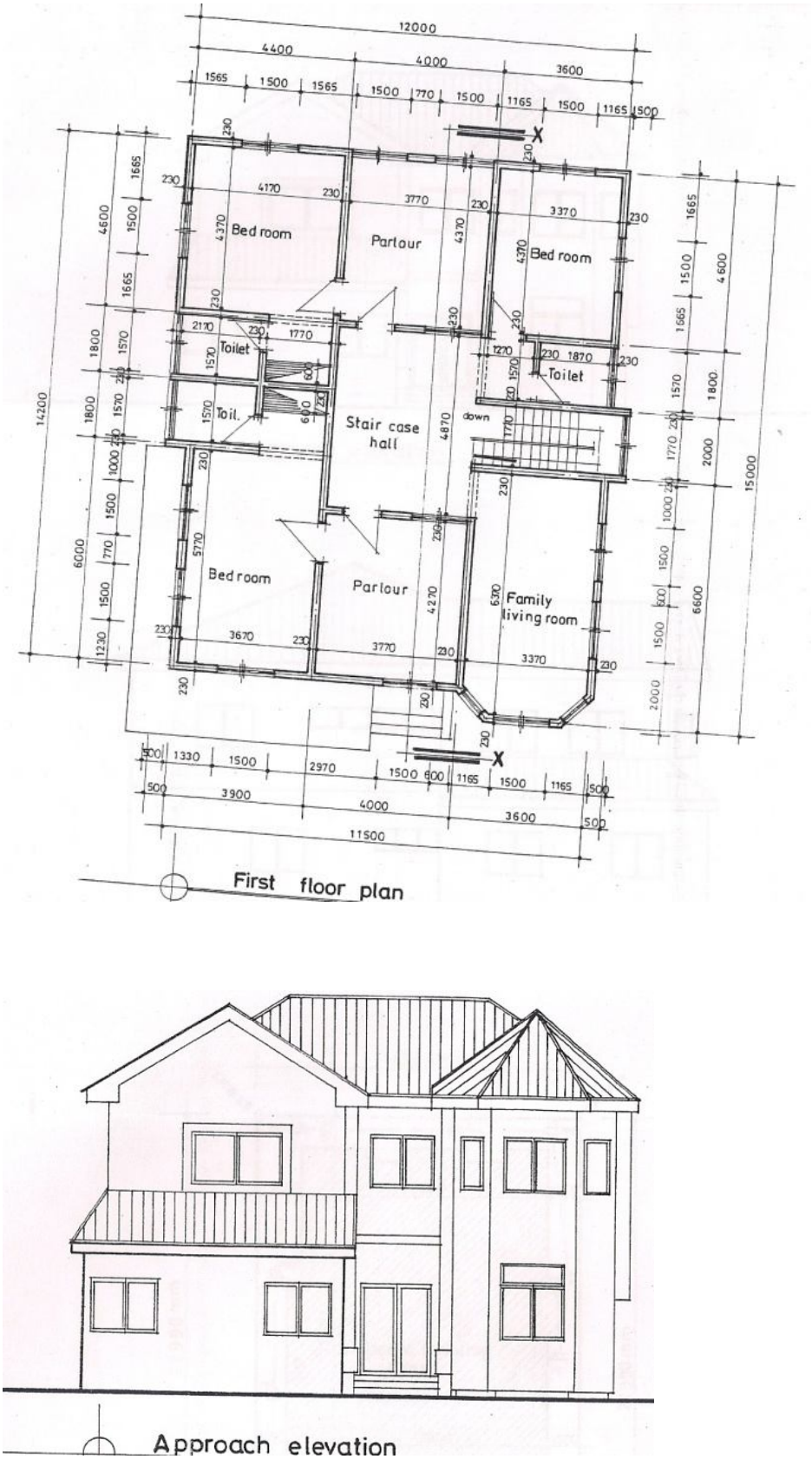


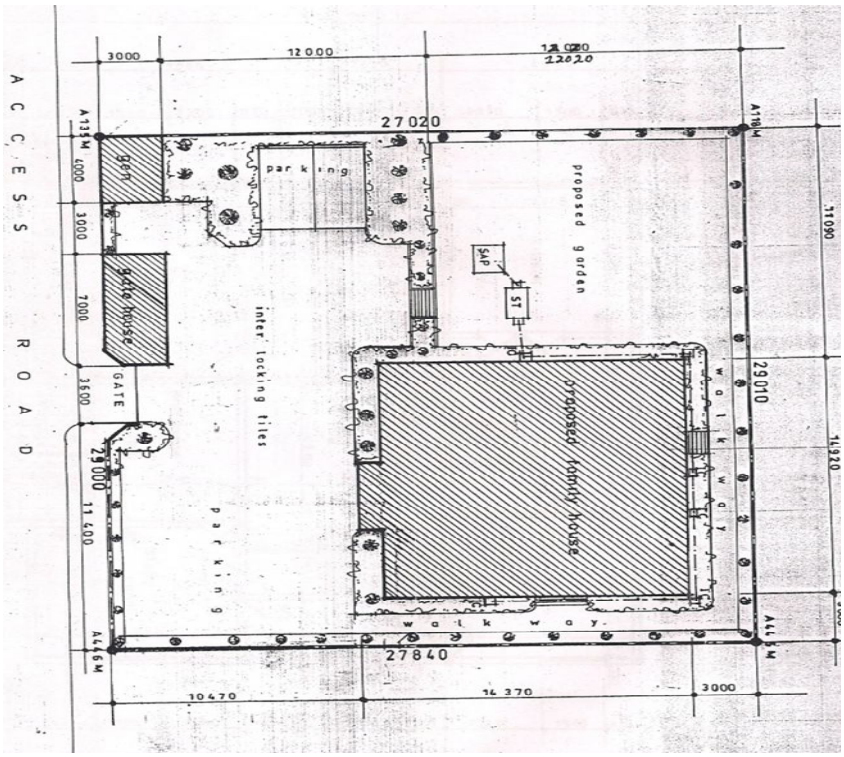
Fig 4.30 Showing sketches of architectural plan of case 6

It was completed without set back and cross ventilation. The effect of this will be in terms of quality of air due to lack of cross-ventilation and in case of fire, spread will be fast and may affect neighbors.

Consequently, the privacy and hazard will affect occupants and neighbors which will negate regulations of the authority.

Case No. 7*:* This is a case along Audu Bako way, Nassarawa Local Government with residential railway lease papers (TP/UDB/293) (Fig. 4.31) The development was prosecuted and drawing as built submitted and was queried due to improper documentation of ownership documents.

However, the contravention here is building without approval and procedure Not adhered to the consequence of this amount to failure to follow procedure May lead to non adherence to regulations as it affects development in the State.



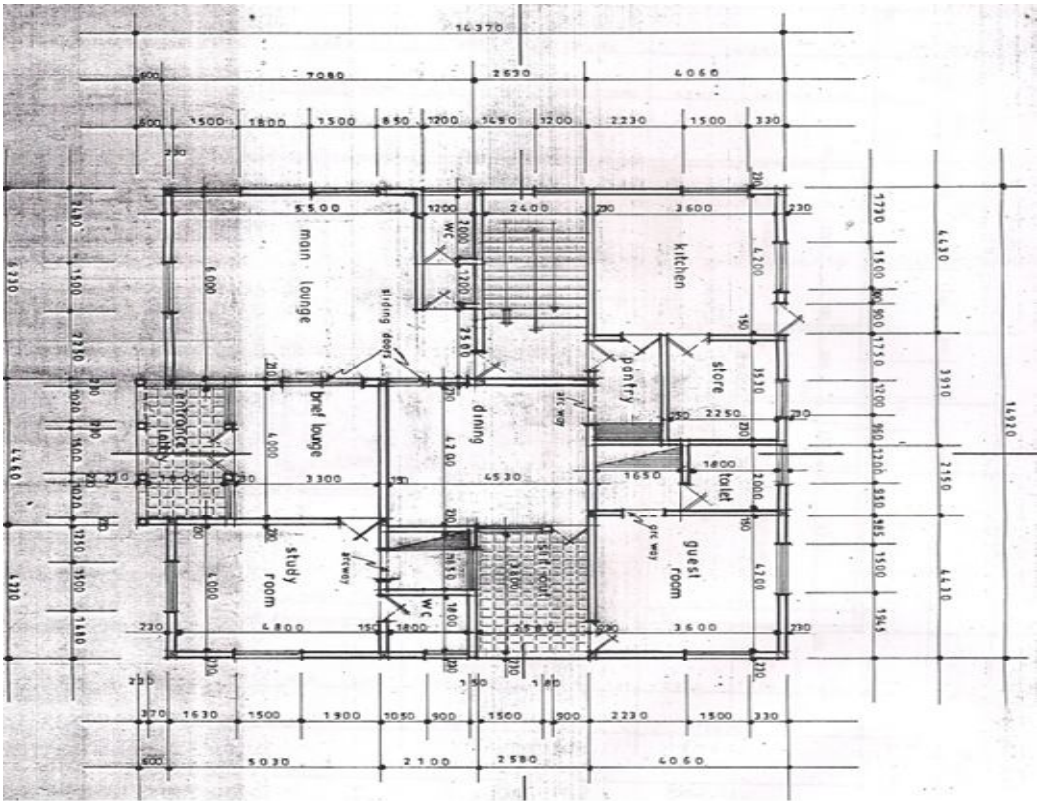
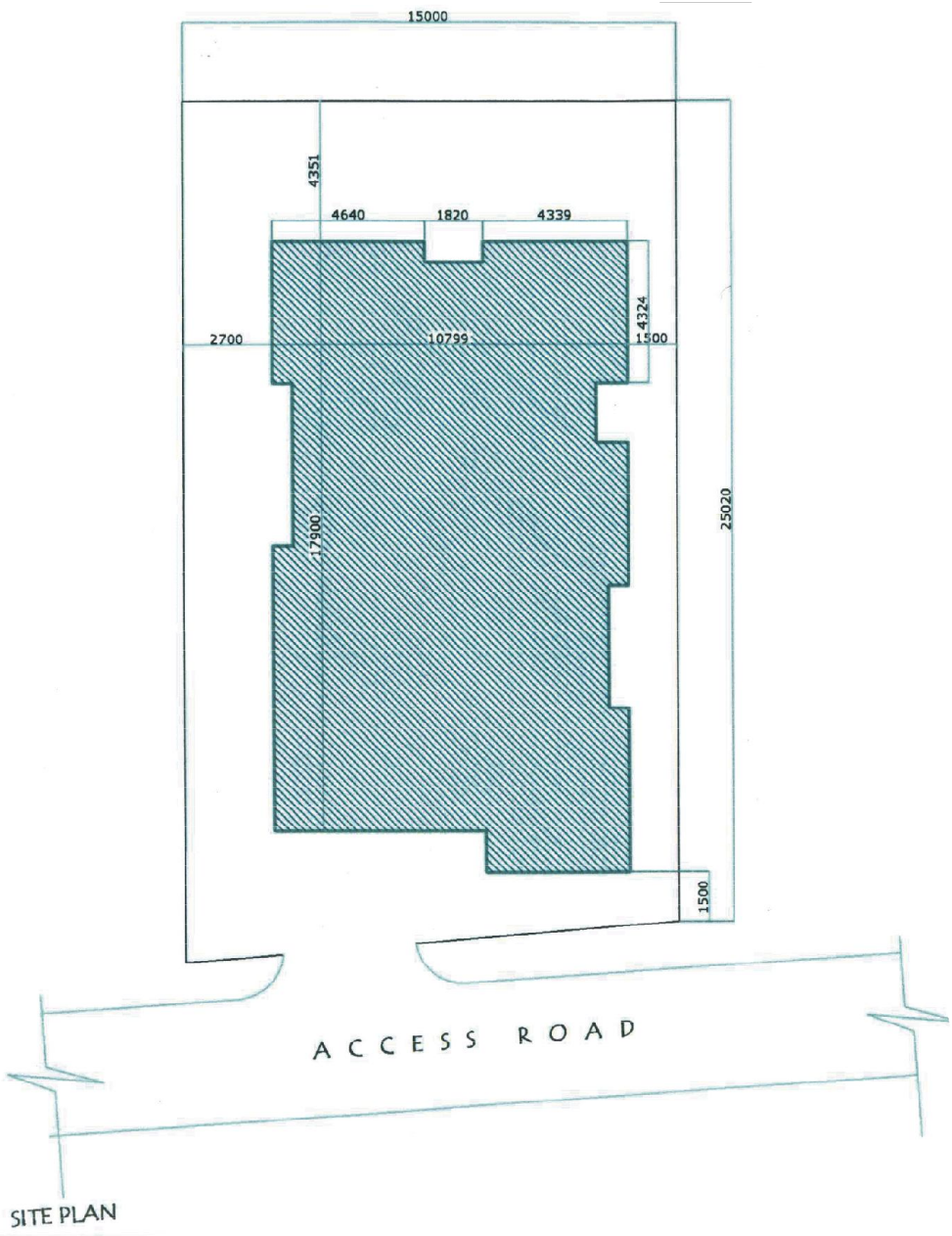


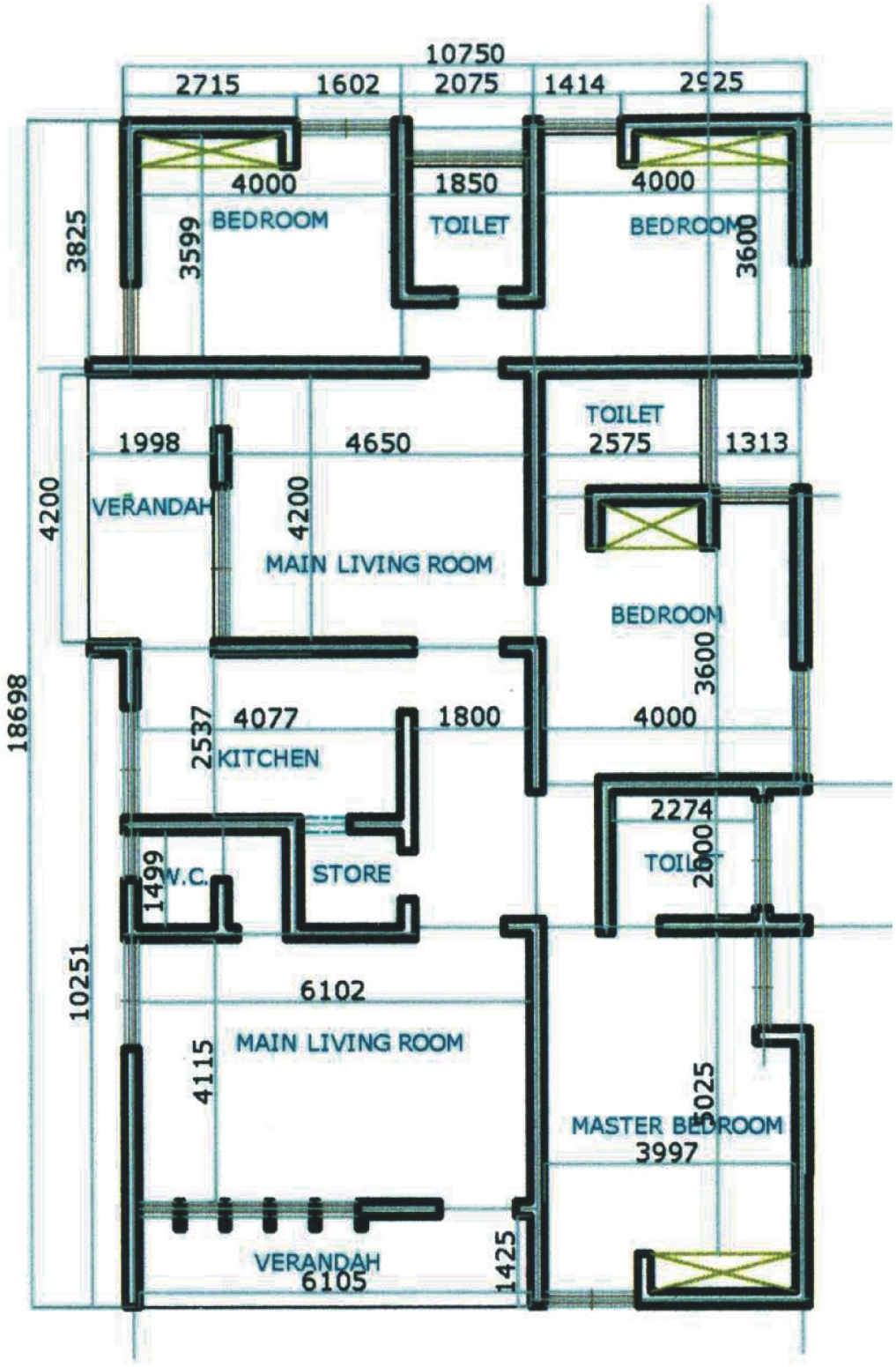
Fig 4.31 Sketche of architectural plan of case 7

Case No. 8*:* This case is at No 384 (TP/UDB/98A) Naibawa, Tarauni Local Government with residential certificate of occupancy (Fig. 4.32) The development was completed without approval and drawings later submitted and queried in term of ownership documents. The contravention here is building without approval and not following Procedure.

Effect of this kind of contravention is anything can go wrong and above all defying regulations of building plan approval in the state which is a law.


15000
4351
4640
1820
4339
14324
2700
10799
1500
17900
25020
1500
ACCESS ROAD

SITE PLAN


10750
2715
1602
2075
1414
2925
4000
BEDROOM
1850
TOILET
4000
BEDROOM
3825
3599
3600
TOILET
1998
4650
2575
1313
4200
VERANDAH
4200
MAIN LIVING ROOM
BEDROOM
3600
18698
2537
4077
1800
4000
KITCHEN
2274
2600
1499
W.C.
STORE
10251
6102
MAIN LIVING ROOM
4115
5025
MASTER BEDROOM
3997
VERANDAH
6105
1425

FLOOR PLAN

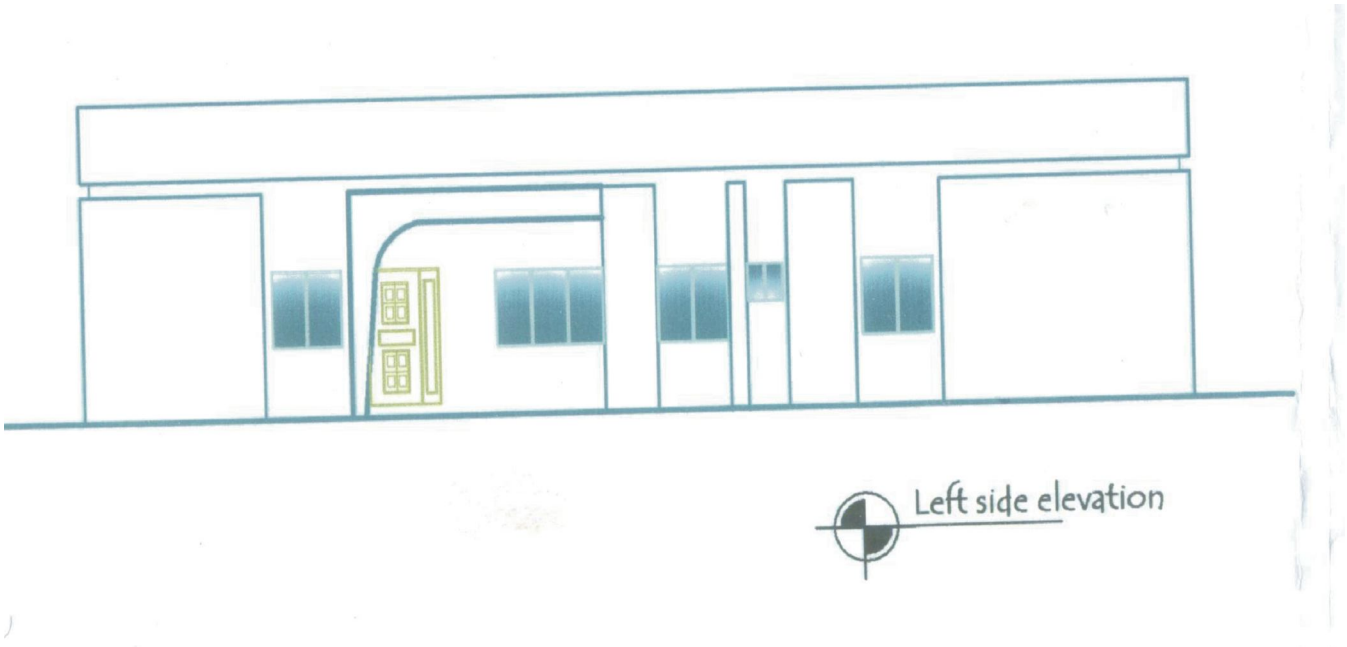
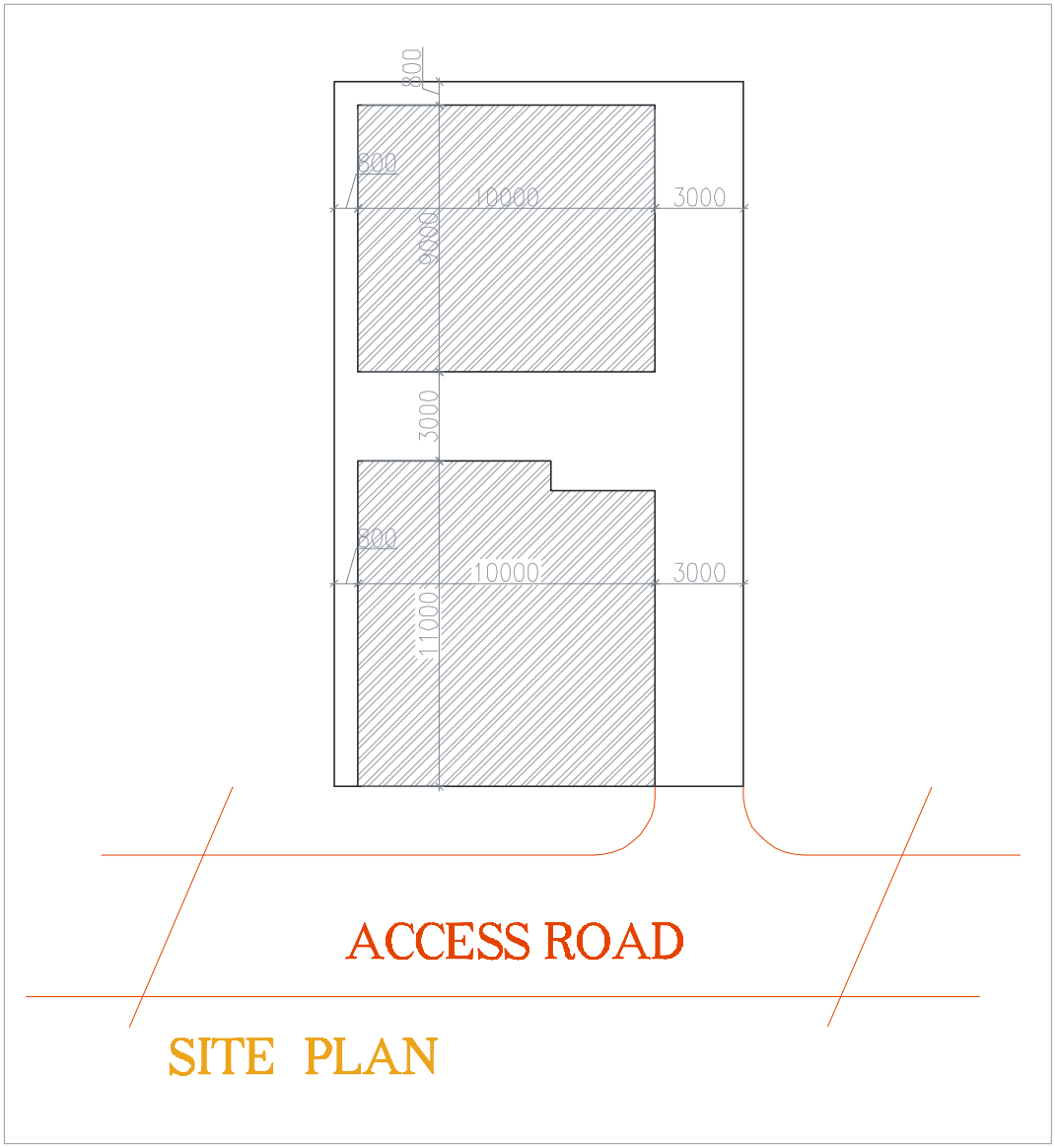
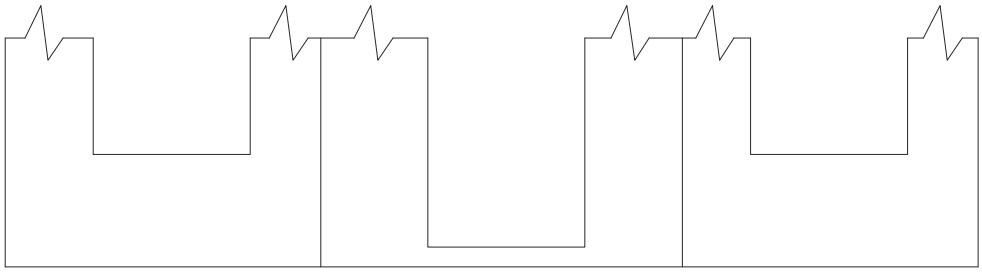


Fig 4.32 Sketches of architectural plan of case 8

Case No. 9*:* This case too, is at Naibawa plot no. 394 (TP/UDB/98A), Kumbotso Local Government area with residential certificate of occupancy, (Fig. 4.33).





ELEVATION

Fig 4.33 Showing sketches of architectural plan of case 9

The development was at almost lintel level and only sketch available and no Action taken later. The contravention here is in terms of distance between two buildings, setback, and over development. The effect here will be in case of fire, transfer will be easy, also privacy and flow of air will be affected.

Case No. 10*:* This case is at No 43 Abedie road Sabon Gari, Nassarawa Local Government, with local government papers meant for residential development. The development has been completed and prosecuted with only sketch drawings and no any submission later on. The contravention as per sketch (Fig. 4.34)

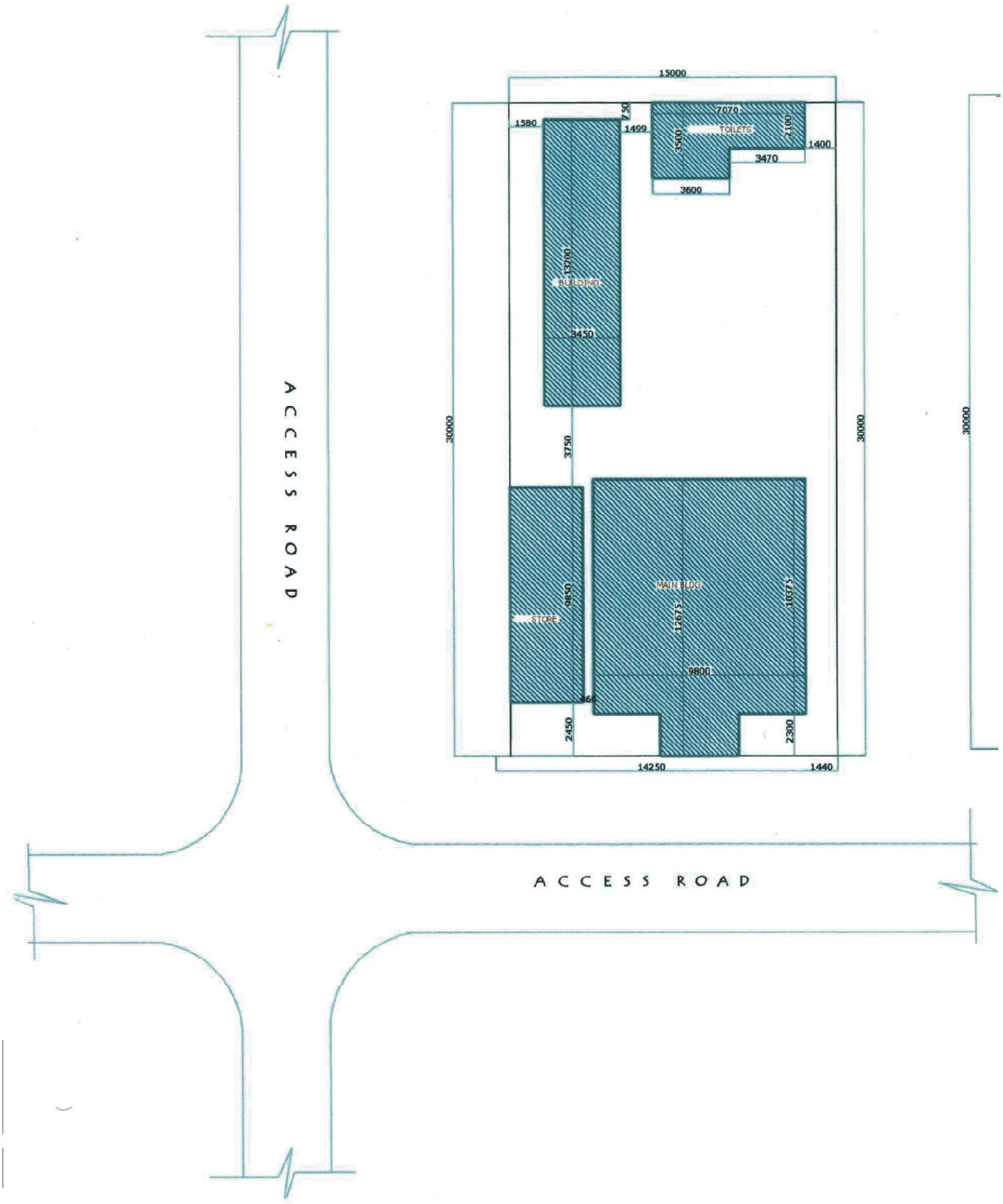

15000
7070
TOILETS
2100
1400
3470
3600
1580
1499
750
3500
13700
BUILDING
3450
30000
3750
30000
30000
STORE
3850
MAIN BLDG
10675
12675
9800
2450
2300
14250
1440
ACCESS ROAD
ACCESS ROAD



Fig 4.34 Sketches of architectural plan of case 10

Is in term of building without approval, over development, setback not adhered to and parking not provided. Also distance between two building not observed while services i.e. soak way pit and septic not feasible in the little space left.

Effect of this is in case of fire, transfer is very easy, and ventilation will be affected so also general movement in the compound. This therefore violates building regulations of the state.

Case No. 11*:* This case in at Plot No 363, Na'ibawa Quarters, TP/UDB/98A. It is located at Kumbotso Local Government. The ownership documents are local government papers for residential purpose. The development was at DPC level (Fig 4.35),

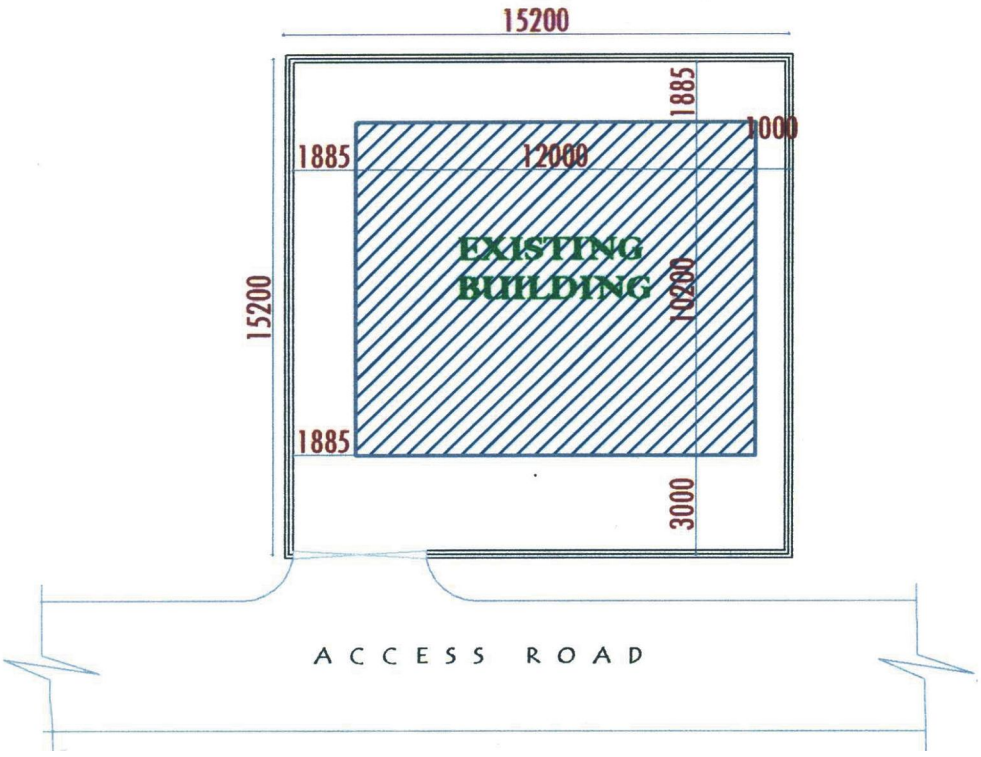


Fig 4.35 Sketches of architectural plan of case 11

and only sketch is used as the owner did not respond to the notice of stop development served.

The identified contraventions here is that of set – back, development ratio and parking. Also services where the set – back left may not contain standard sock away and septic tank. It is very likely the defaulter will push up this sock away and septic tank on road reservation which will consequently affect the space for utilities to be provided for the area.

Similarly, the set – back which is below standard will affect privacy of the neighbor and in case of fire, spread is likely to be faster.

With respect to parking, it may have to be on road reservation which will affect traffic flow.

Case No. 12*:* This case is at No 80 Yoruba Road, Sabon Gari, Fagge Local Government and ownership documents converted to statutory with Residential certificate of occupancy. It is fully developed and only sketch provided (Fig. 4.36) and no submission of drawings by the owners even though prosecuted. The contravention here is to do with building without approval, unilateral change of purpose, setbacks not observed and no parking provided.

Consequences are non-compliance to building regulations which is defying the states' law, impeding movement because of the shops and no parking for same.

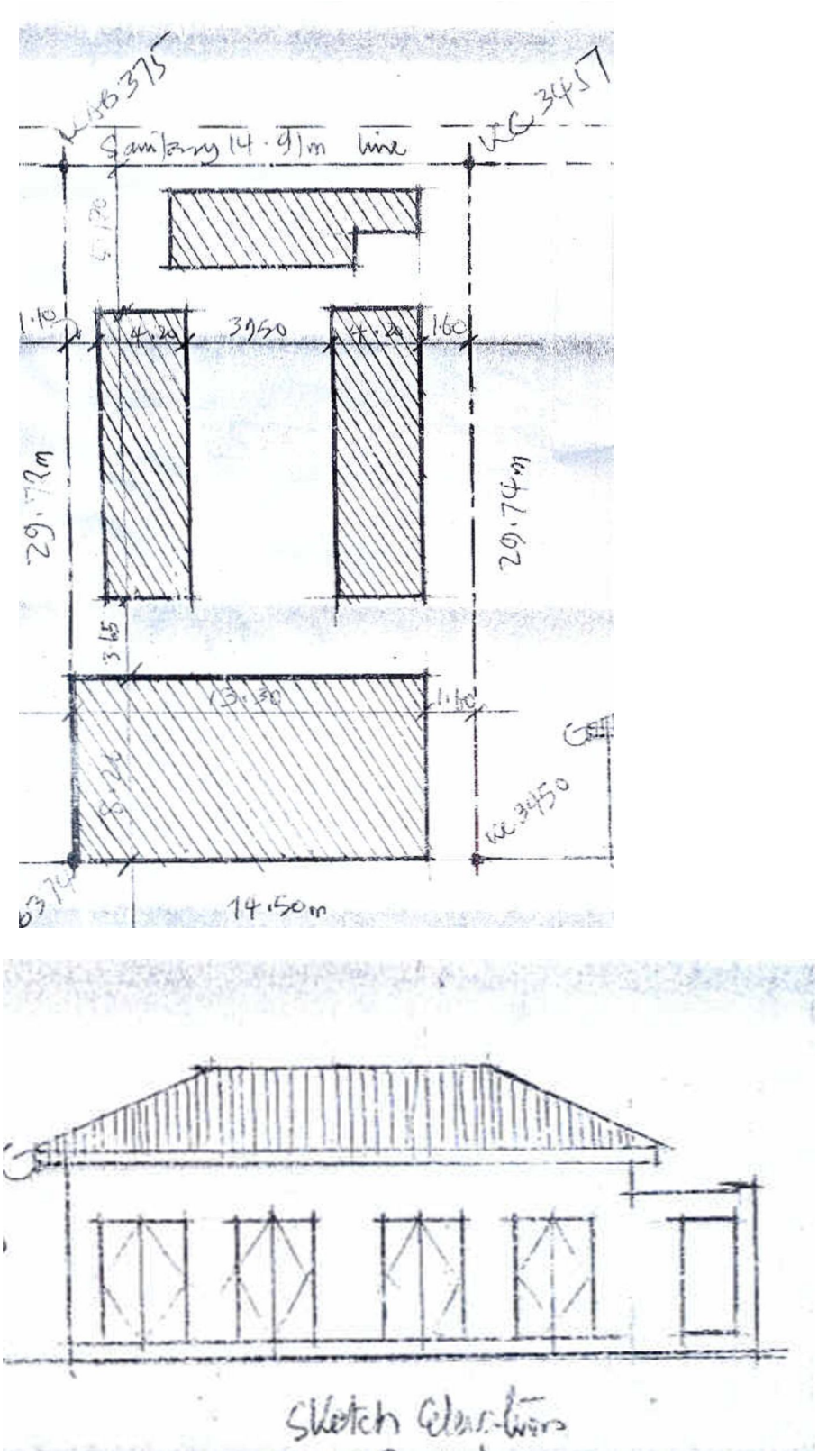
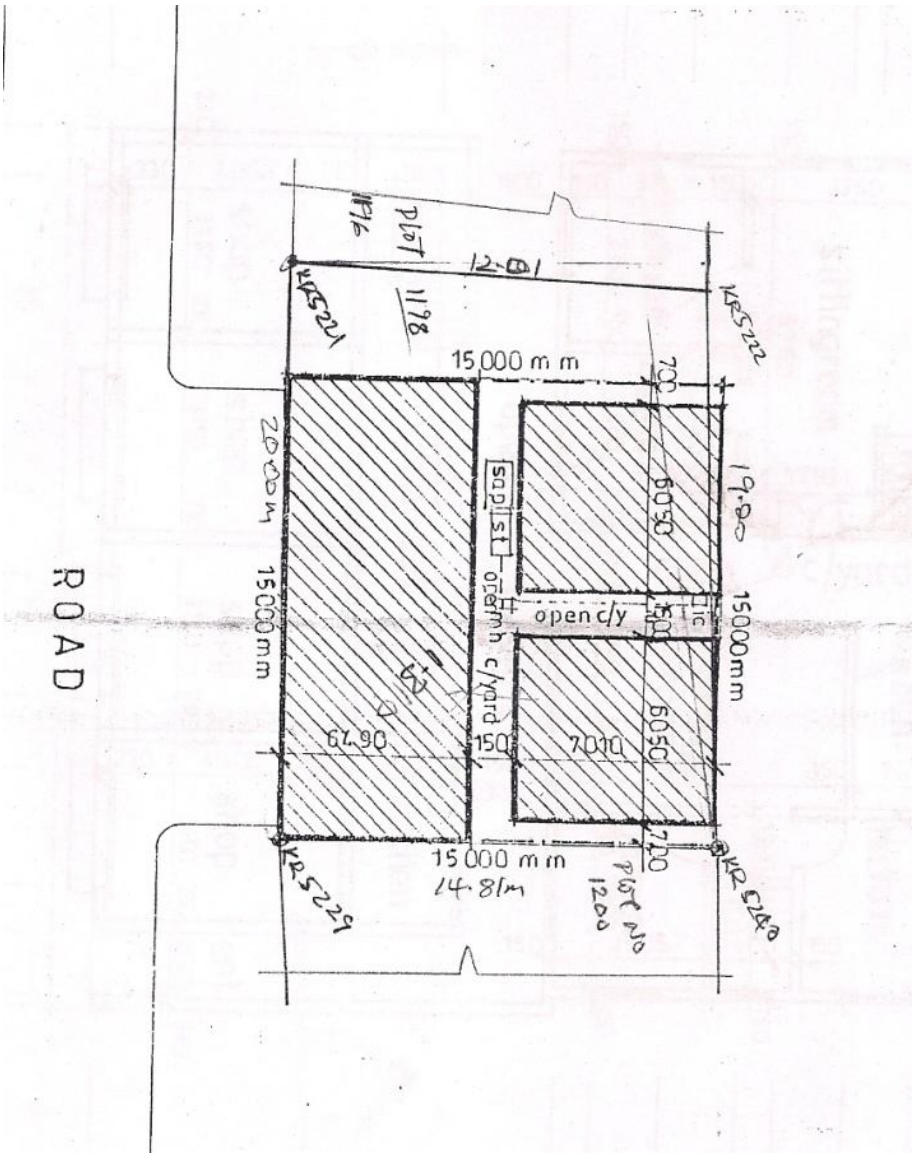


Fig 4.36 Sketches of architectural plan of case 12

Case No. 13*:* This case in at plot no. 119: Dorayi Babba (TP/UD3/172) in Dala Local Government with residential certificate of occupancy. The development is completed with drawings submitted after prosecution by the planning authority (Fig. 4.37) in 2007. And queried with no responses.



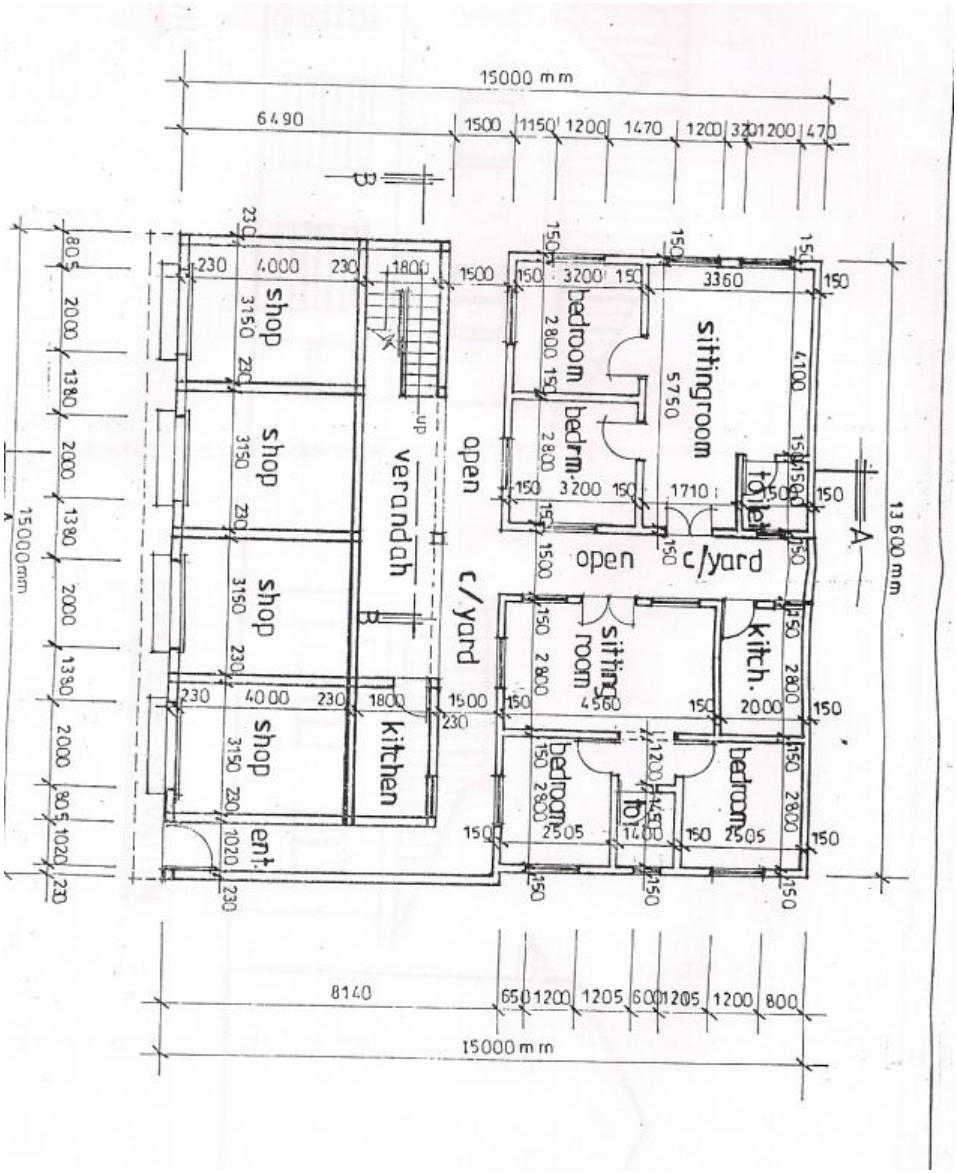


Fig 4.37 Sketches of architectural plan of case 13

The contravention here is to do with setback, distance between two buildings, change of purpose from residential to commercial buildings, over development, privacy and above all services too cannot be accommodated where shown.

The effect of this is primarily in case of fire, spread is very easy, and ventilation is affected. and parking may have to be along the road with unilateral change

of purpose.

Case No. 14*:* This is case at no 43 Abedie street, Sabon Gari, Nassarawa local government with residential local governments' papers. The drawings were submitted after prosecution and addition of building have been made to existing developing. The response was queried and no further action.

Contraventions here are to do with extension of building without approval, unilateral change of purpose from residential to commercial, non observance of setback and lack of parking. This will affect the general quality of the development, lack of cross-ventilation and in case of fire, spread is easy.

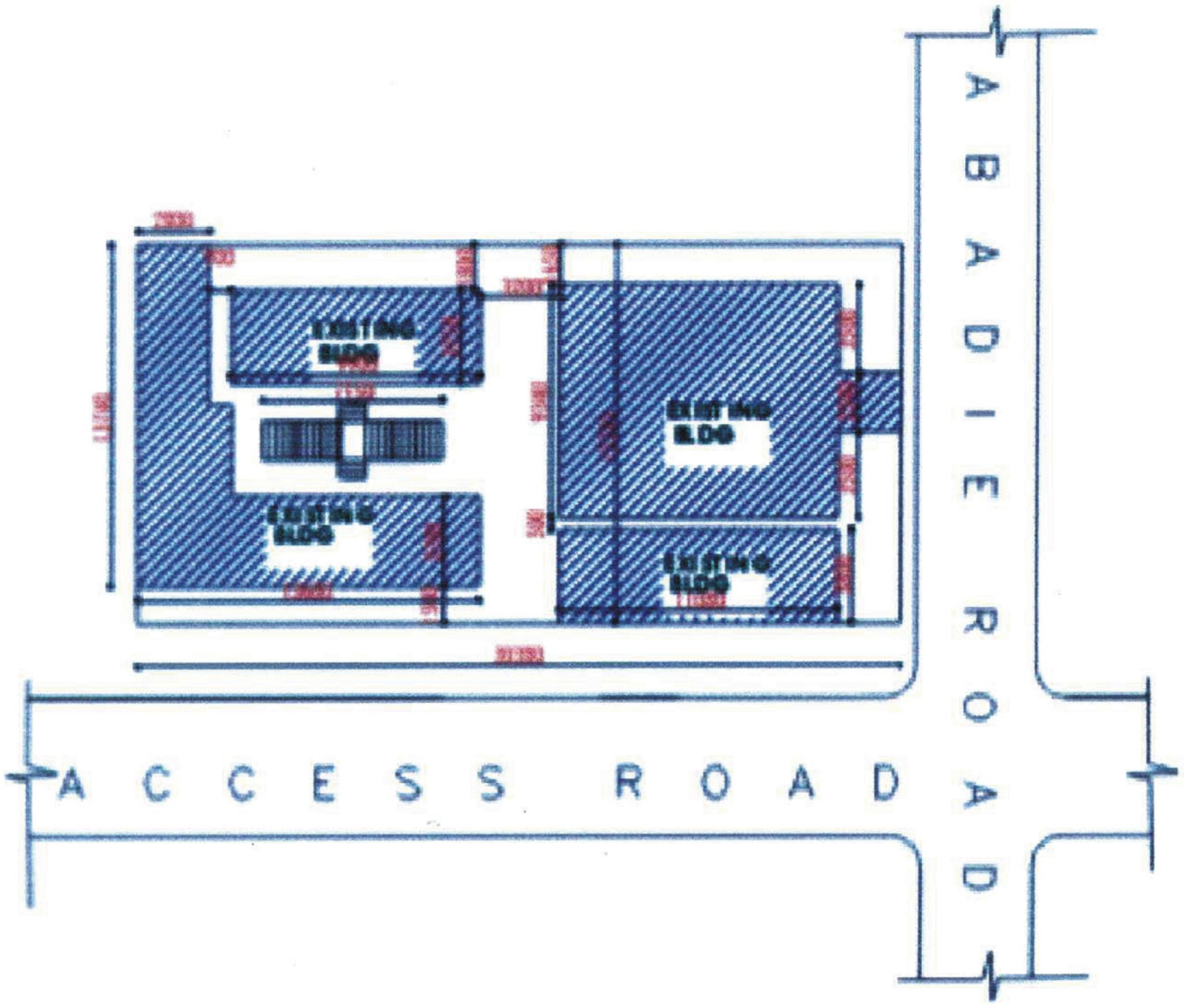
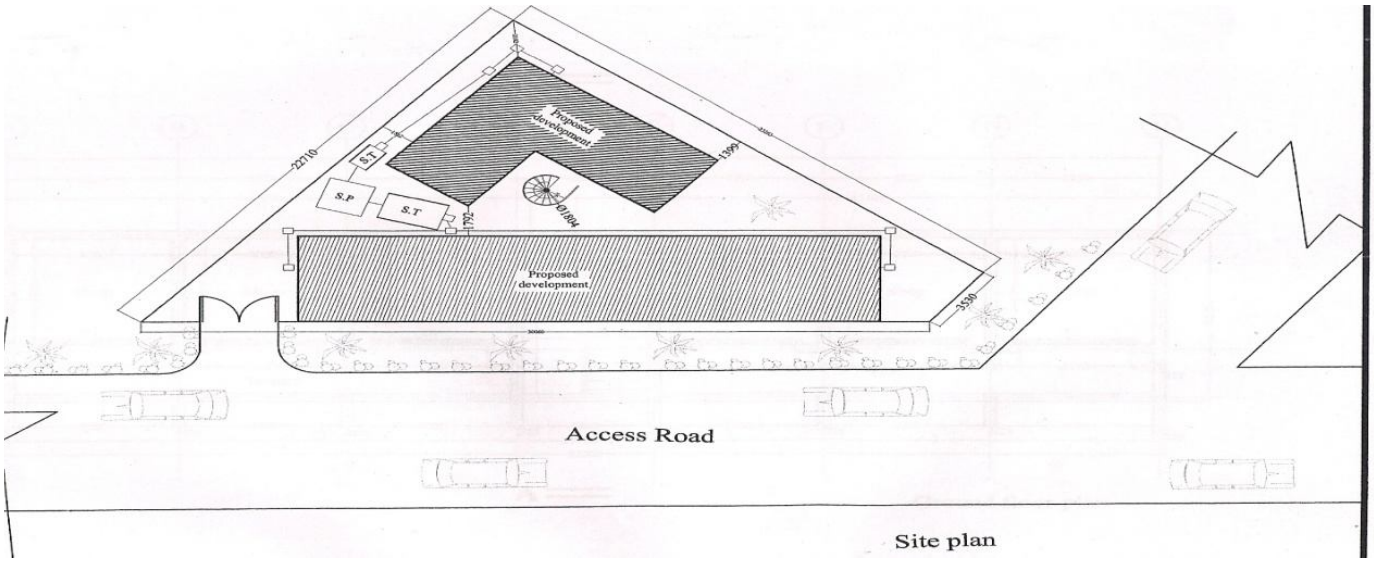
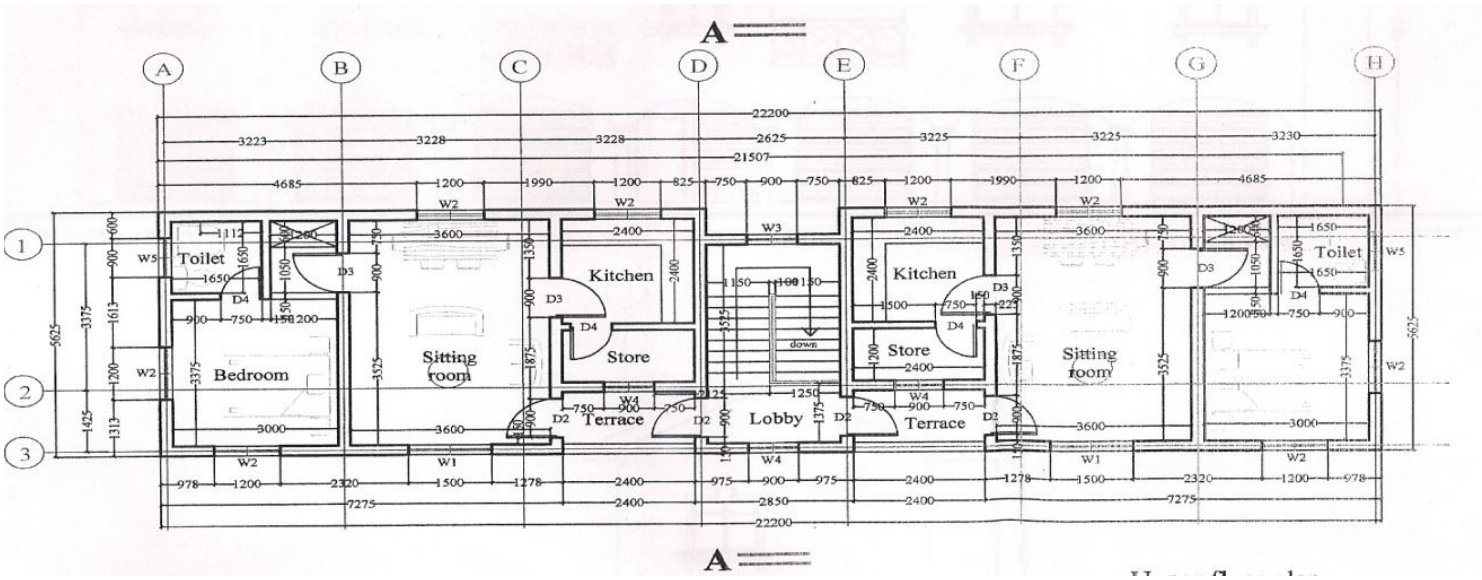


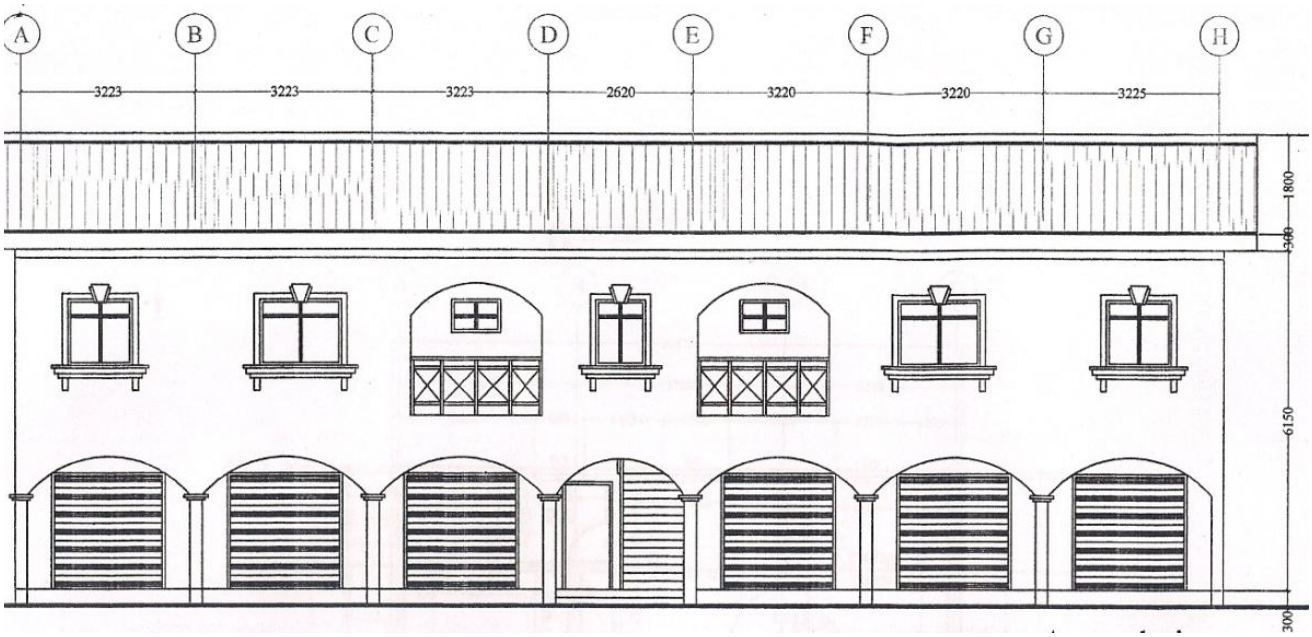
Fig 4.38 Sketche of architectural plan of case 14

Case No. 15*:* This is a case of plot 547A Naibawa (TP/UDB/9:2) with residential certificate of occupancy. The owners were prosecuted and submitted drawings (Fig. 4.39) and queried with no further response.


Proposed development
S.T.
S.P
S.T
Proposed development
Access Road

Site plan


A
A
B
C
D
E
F
G
H
1
2
3
Toilet
Bedroom
Sitting room
Kitchen
Store
Terrace
Lobby
Kitchen
Store
Terrace
Sitting room
Toilet
down
22200
21507
2850
7275



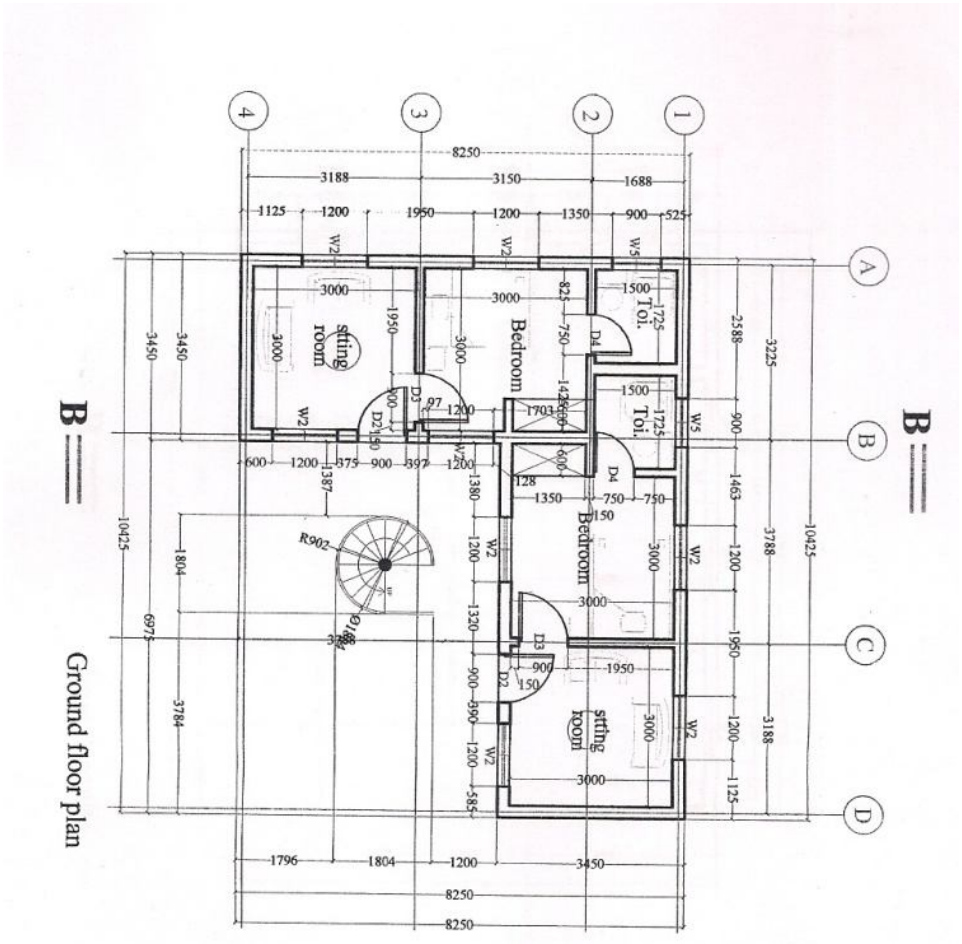
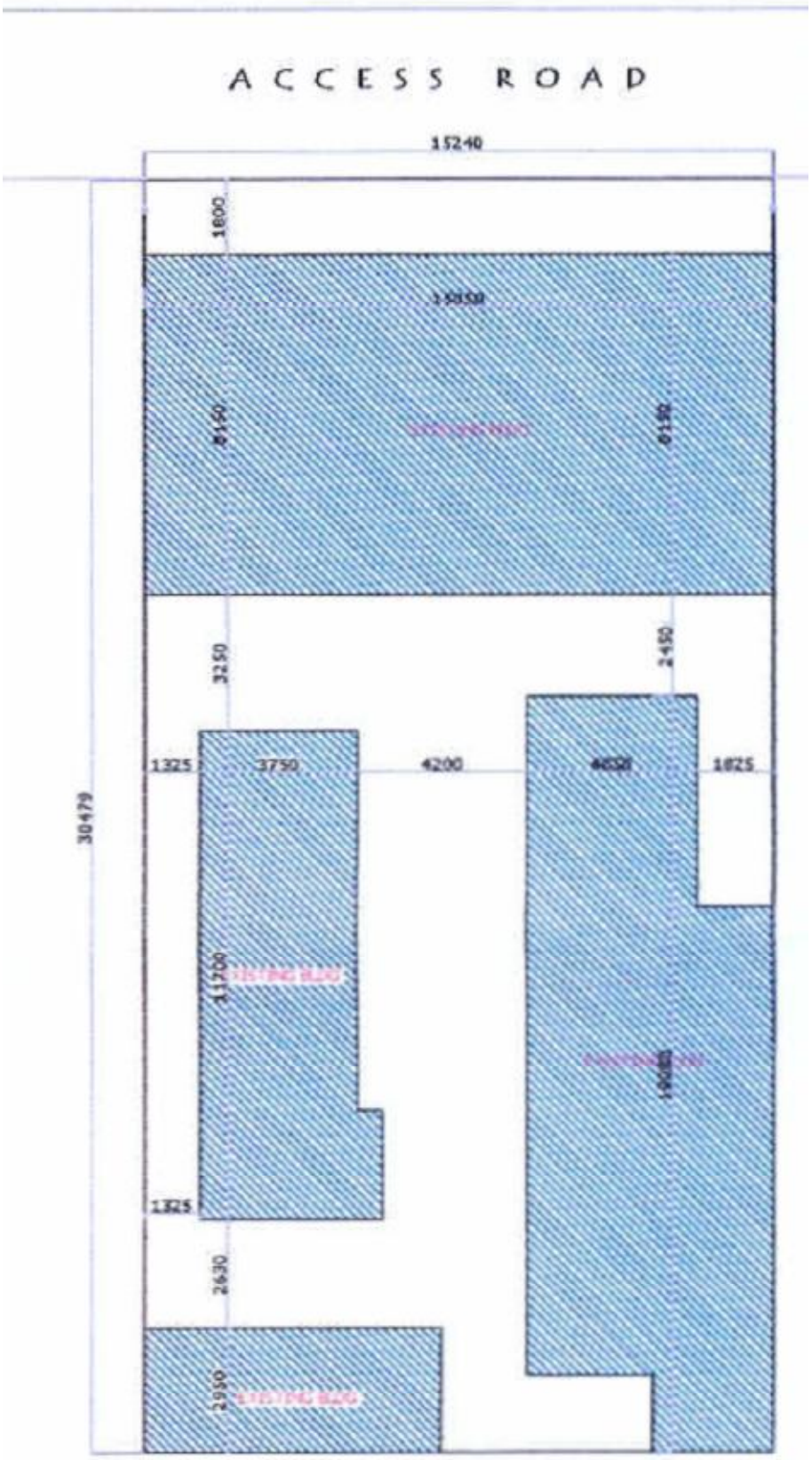


Fig 4.39 Sketches of architectural plan of case 15

The observed contravention is to do with building without approval, unilateral conversion from residential to commercial, setback not observed, parking not provided and distance between two buildings not adhered to.

Effect is to do with failure to comply with the law, parking may have to take place in road reservation hence impeding traffic (human and vehicular) and in case of fire there will be easy spread.

Case No. 16*:* This is a case at no. 5 Abedie Street, Sabon Gari, Fagge Local Government, with residential certificate of occupancy. The site is fully developed (as per drawing submitted after prosecution (Fig. 4.40) and no response due to queries given.


ACCESS ROAD
15240
1800
6150
6150
3250
2450
1325
3750
4200
1825
30479
11700
1325
2630
2950

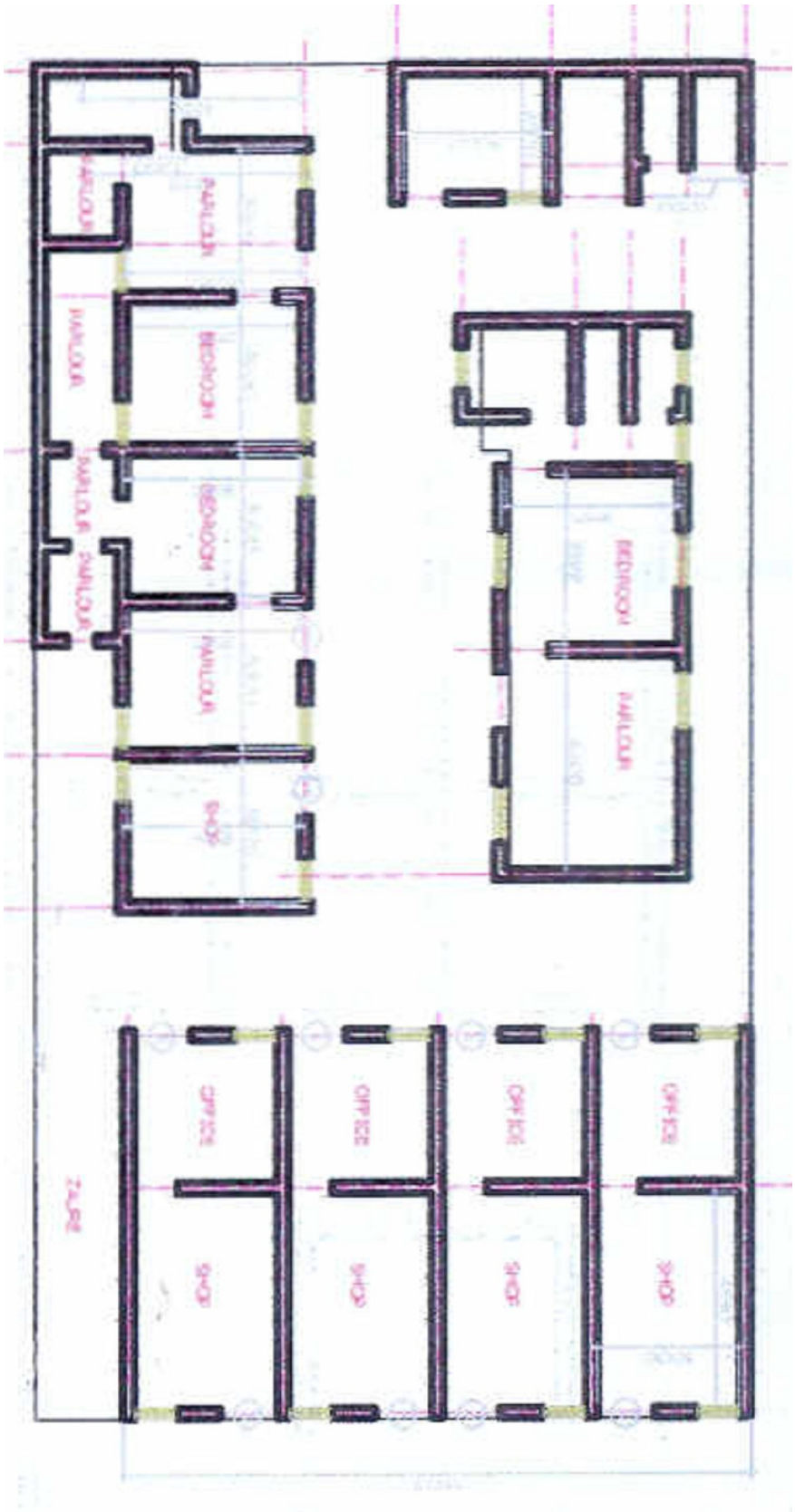
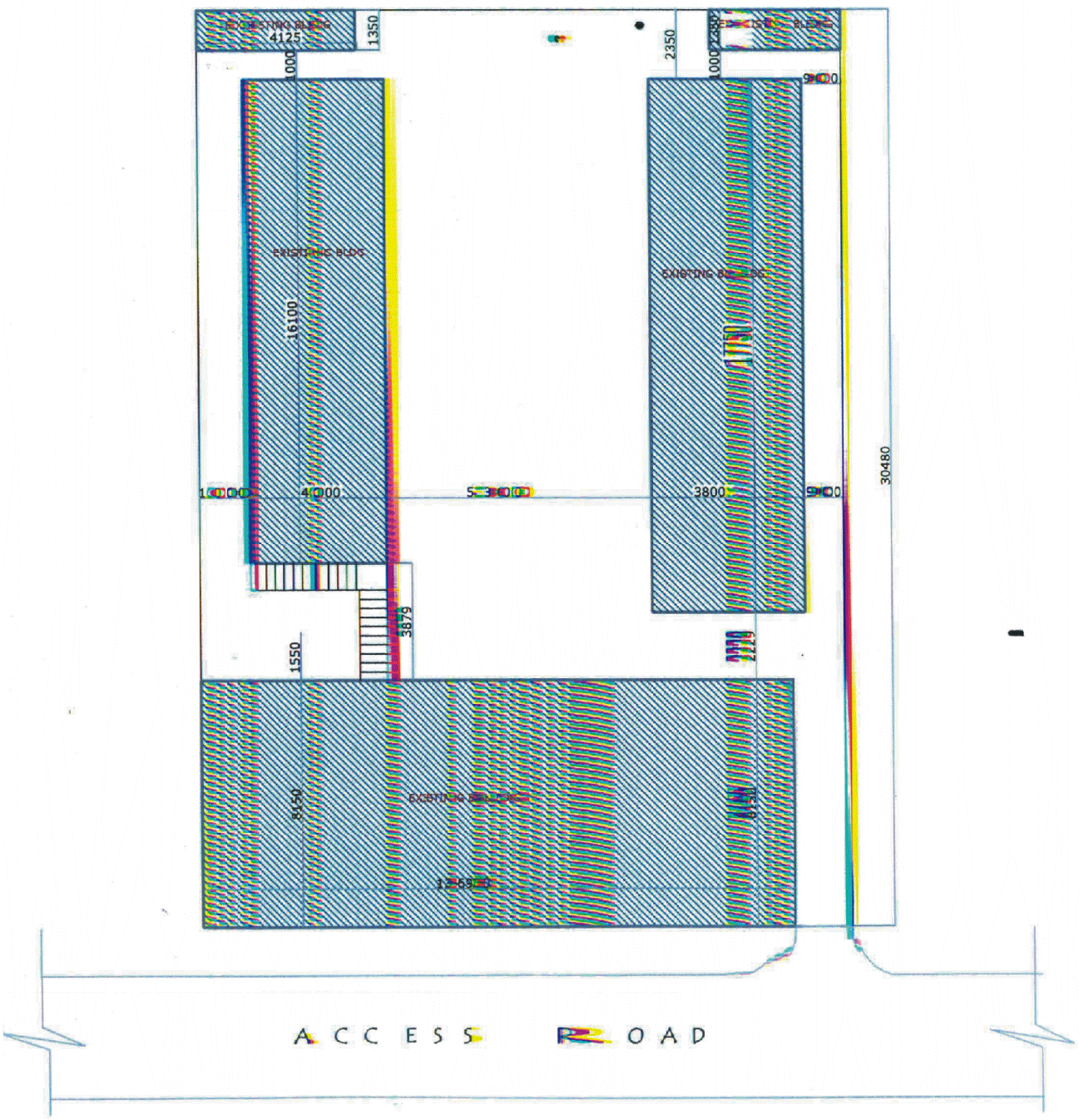


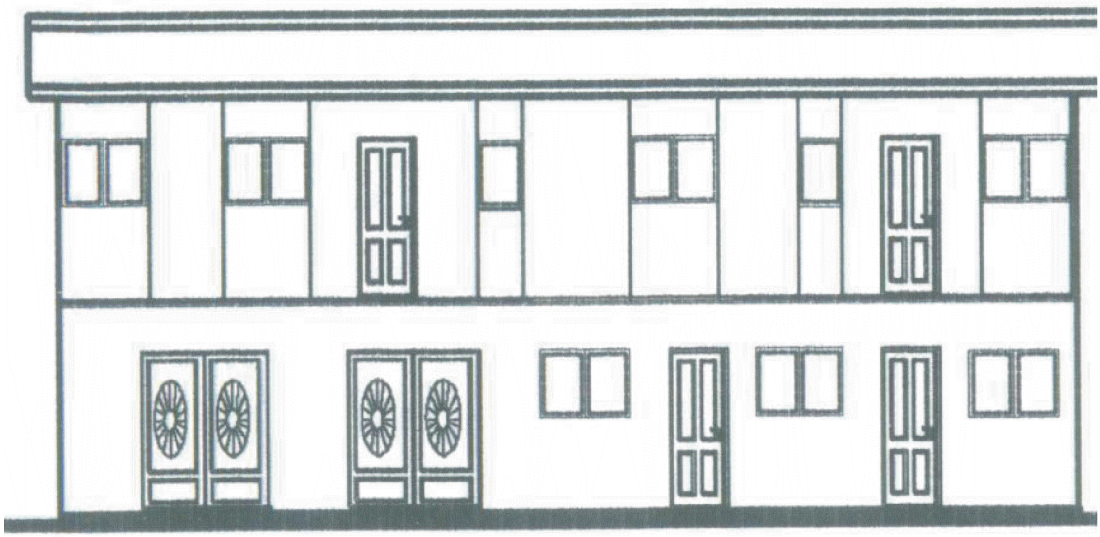
Fig 4.40 Sketches of architectural plan of case 16

The contraventions are in terms of building without approval, unilateral change of purpose from residential to commercial, distance between two buildings and parking.

The effect of this act is failure to comply with building regulations, parking will likely take place in the road reservation hence impeding traffic movement, services will be affected an spaces left may not accommodate soak away and septic tank. Utilities will be difficult to be accessed from the development.

Case No 17*:* The case is at No. 56 Blatt Hughes Street, Sabon Gari, Fagge Local Government with residential certificate of occupancy.


EXISTING BLDG
4125
1350
2350
1000
EXISTING BLDG
16100
EXISTING BLDG
9000
4000
5300
3800
9000
30480
3879
1550
2229
8450
8450
12598



FRONT VIEW

Fig 4.41 Sketches of architectural plan of case 17

No drawings were submitted after prosecution only sketch (Fig. 4.41) and development is at roof level of first floor. Contravention is in terms of setback, distance between two building, over development, lack of parking and unilateral change of purpose from residential to commercial.

Effect of this is to do with general movement within the compound, ventilation will be affected due to setback and over development while parking may have to be on road reservation and in case of fine spread will be easy.

Case No. 18*:* This case is at Dorayi Babba (TP/UDB/172) in Gwale Local Government with residential certificate of occupancy. The owner made submission after prosecution and was subsequently approved Fig. 4.42). The basic contravention here was minimum setback was not observed.

Consequently this will affect privacy and in case of fire spread will be easy.

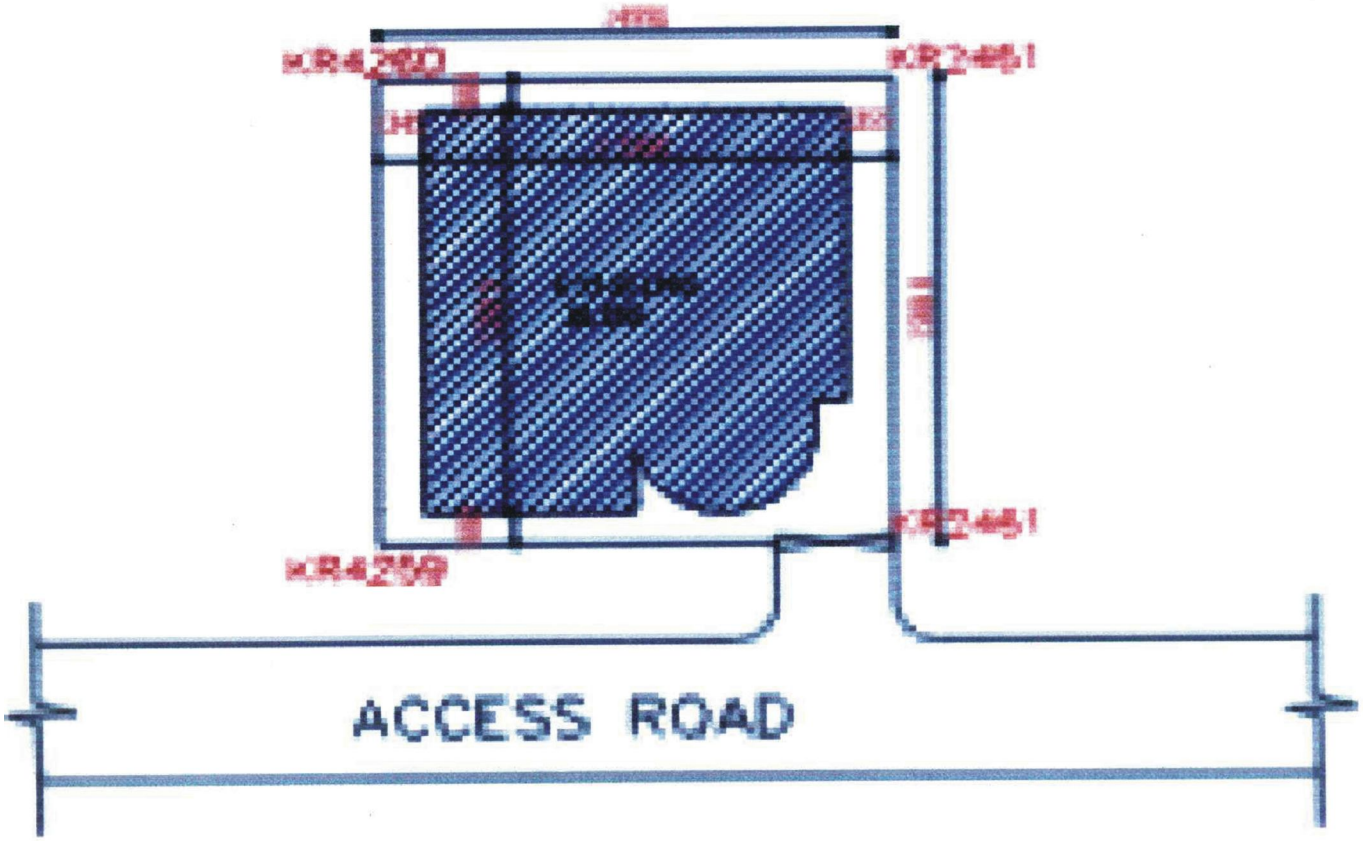
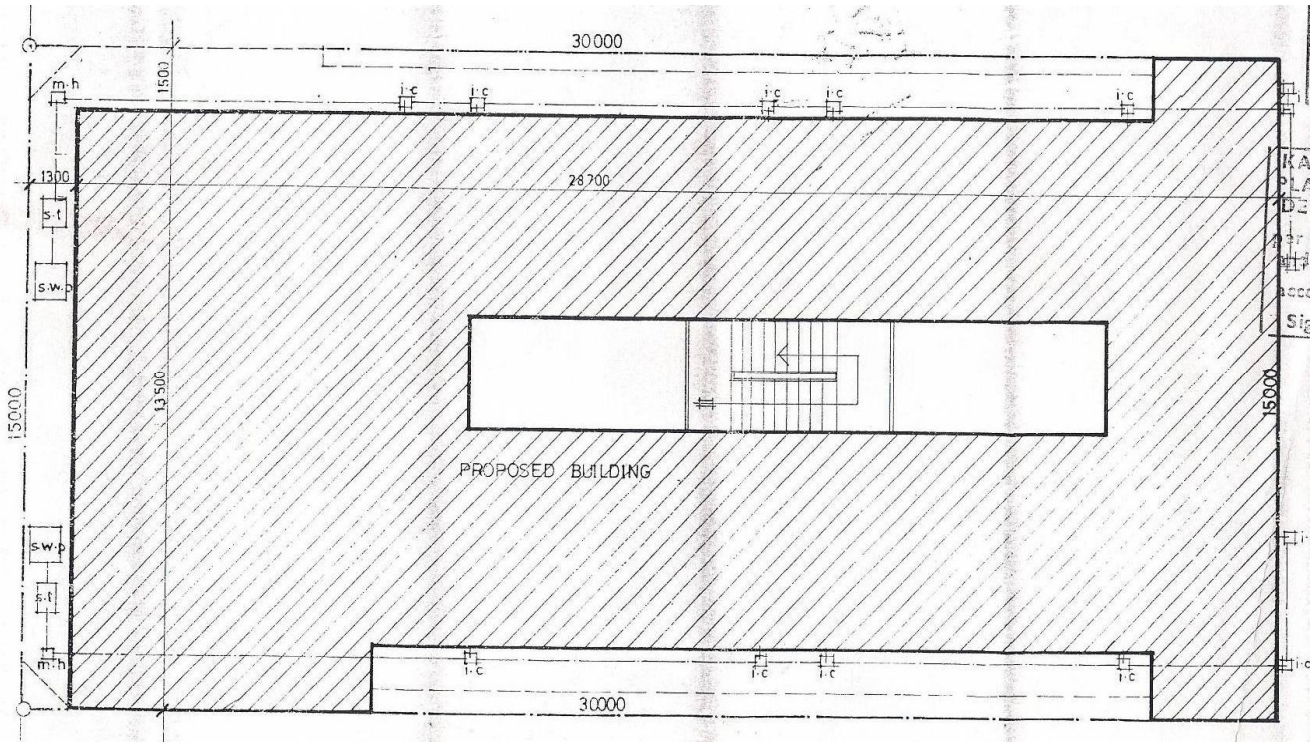


Fig 4.42 Sketche of site plan of case 18

Case No. 19*:* This case is at No. 68 Aitken Road, Sabon Gari, Fagge Local Government, with residential certificate of occupancy. The owner submitted drawings after prosecution and was later approved (Fig.4.43) however, overdevelopment is apparent, setback not observed, and unilateral change of purpose from residential to commercial.


30000
1500
m.h
i.c
1300
28700
s.t
s.w.p
15000
13500
PROPOSED BUILDING
15000
30000

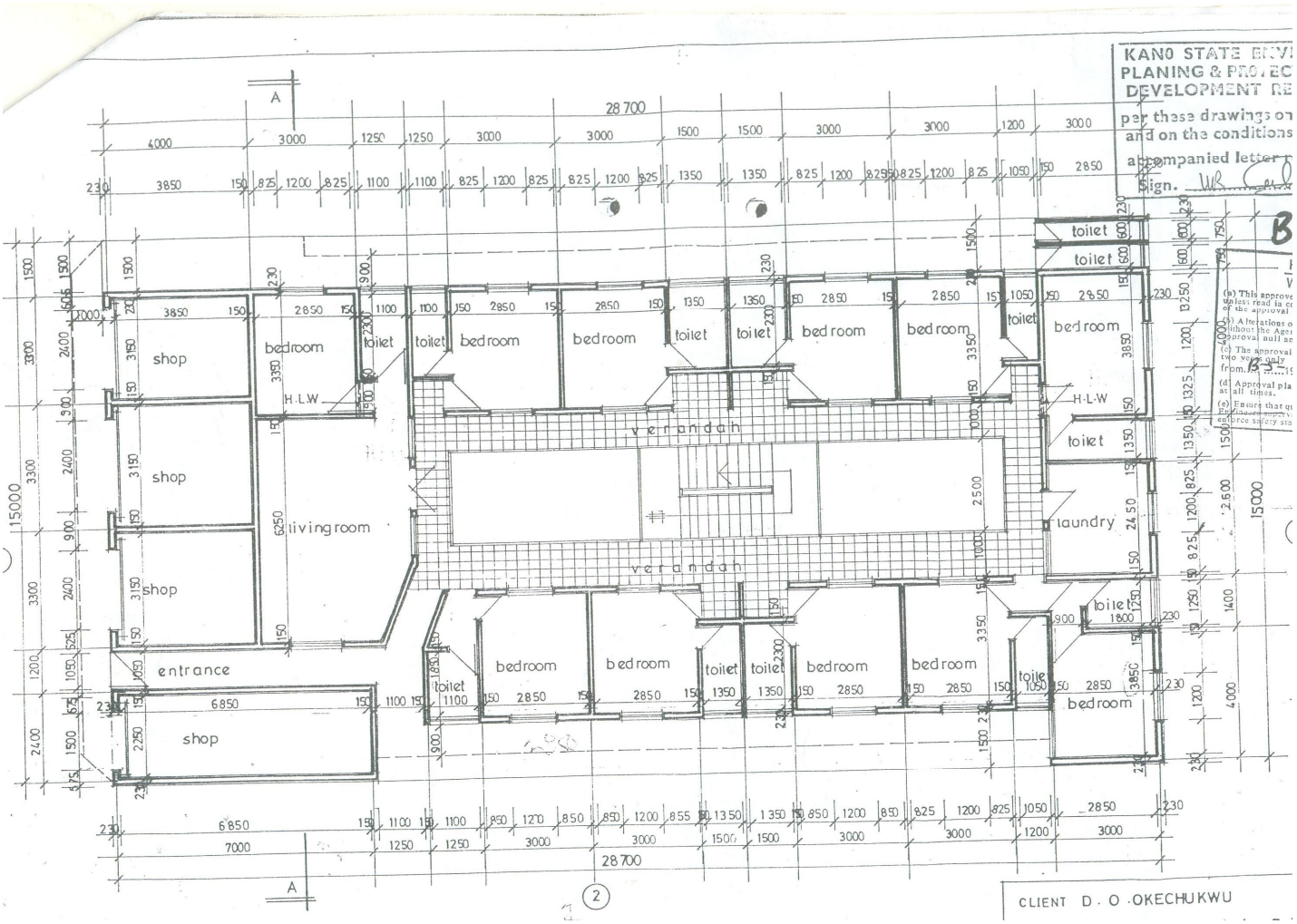

KANO STATE ENVI
PLANING & PROTEC
DEVELOPMENT RE
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and on the conditions
abcompanied letter
Sign.
28 700
shop
shop
shop
entrance
bedroom
bedroom
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toilet
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H.L.W
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verandah
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laundry
CLIENT D. O. OKECHUKWU



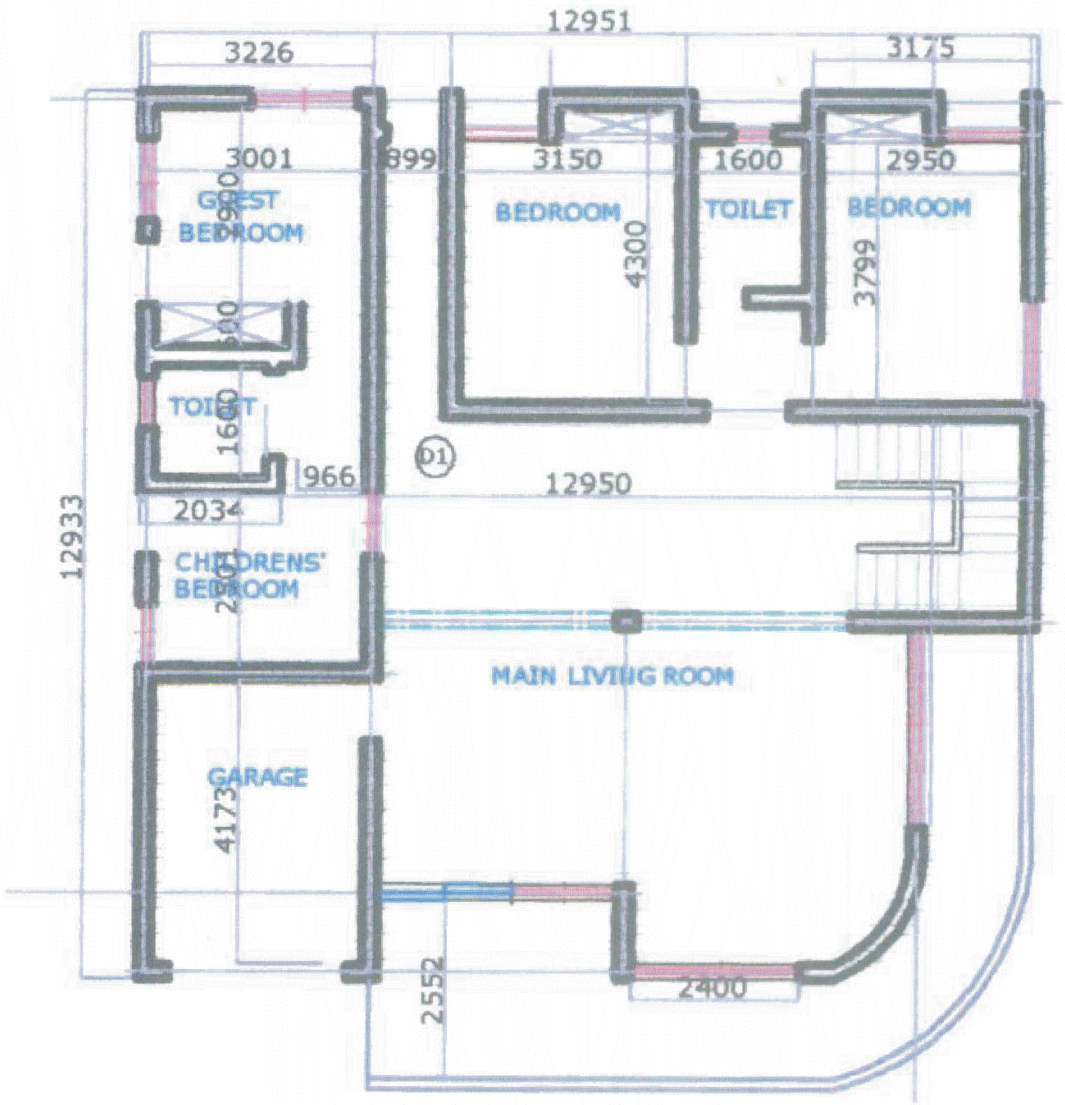
Fig 4.43 Sketches of architectural plan of case 19

Consequence of the forgoing, in case of fire, spread will be easy and evacuation will be difficult so also effective use of fire engine to quench the fire. In fact it is converted to a hotel as per drawings.

Case No. 20*:* This is a case at Nos. 1117 Hausawa (TP/UDB/105 A – D) with residential certificate of occupancy. It is a case of extension where development was already completed drawings submitted (Fig 4.44) and no action later due to query.


15251
3450
1000
2800
9000
4223
6423
860
1020
13370
EXISTING BLDG
22875
14502
1950
ACCESS ROAD

SITE PLAN



GROUND FLOOR PLAN

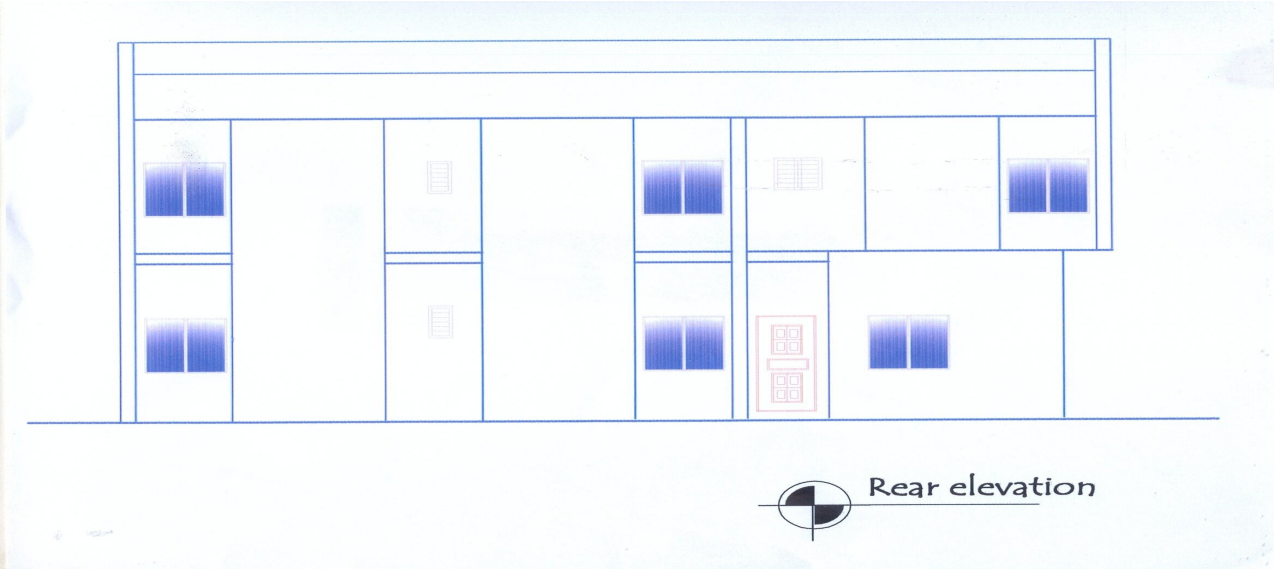


Fig 4.44 Sketches of architectural plan of case 20

The contraventions is to do with building without approval and problem with earlier approval where setback was not observed and cross – ventilation. Effect of this is failure to comply with the law and in case of fire spread will be easy and privacy will be affected.

Case No. 21*:* This case is at plot no. 34 Naibawa (TP/UDB/98A), Kumbotso Local Government with Local Government paper, the purpose is residential.

The owner was prosecuted for adding a structure without approval and no drawings submitted only sketch (Fig. 4.45). The contravention here is building without approval, setback not adhered and the existing building was never approved. Services and utilities will be difficult to provide in the compound.

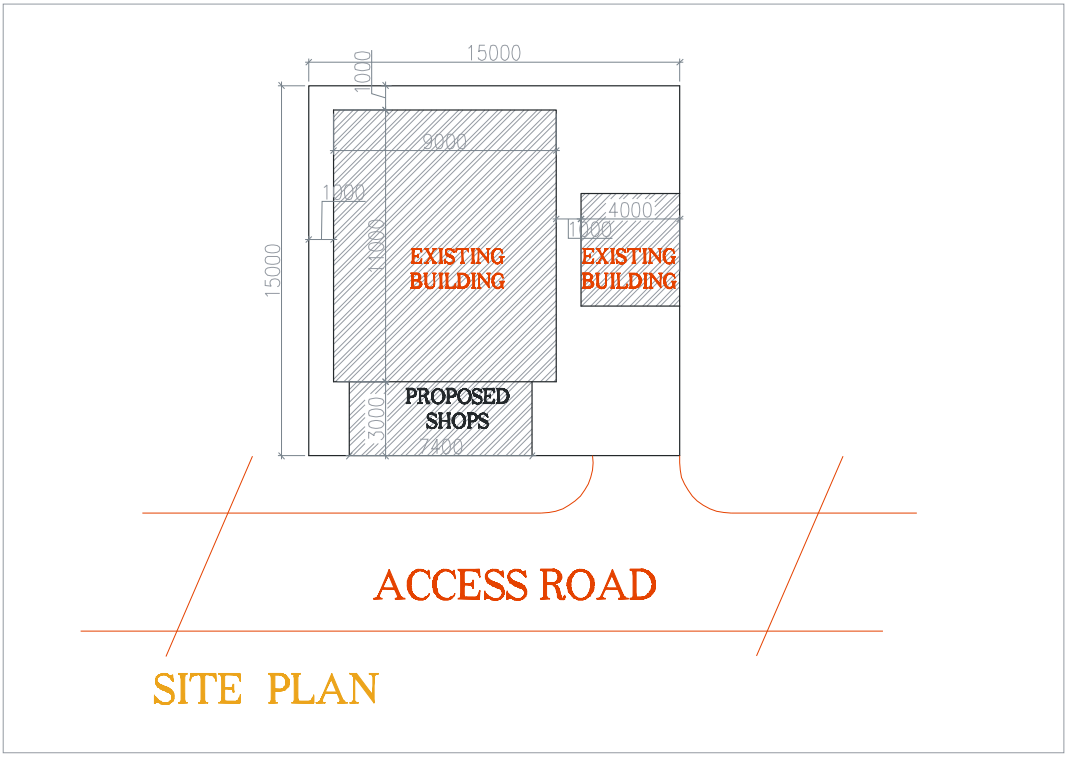


Fig 4.45 Sketches of site plan of case 21

Case no. 22*:* This is a case of No. 27 New Road, Sabon Gari, Fagge local government with certificate of occupancy.

The owner was prosecuted after building without approval and later made submission as per drawings (Fig. 4.46).

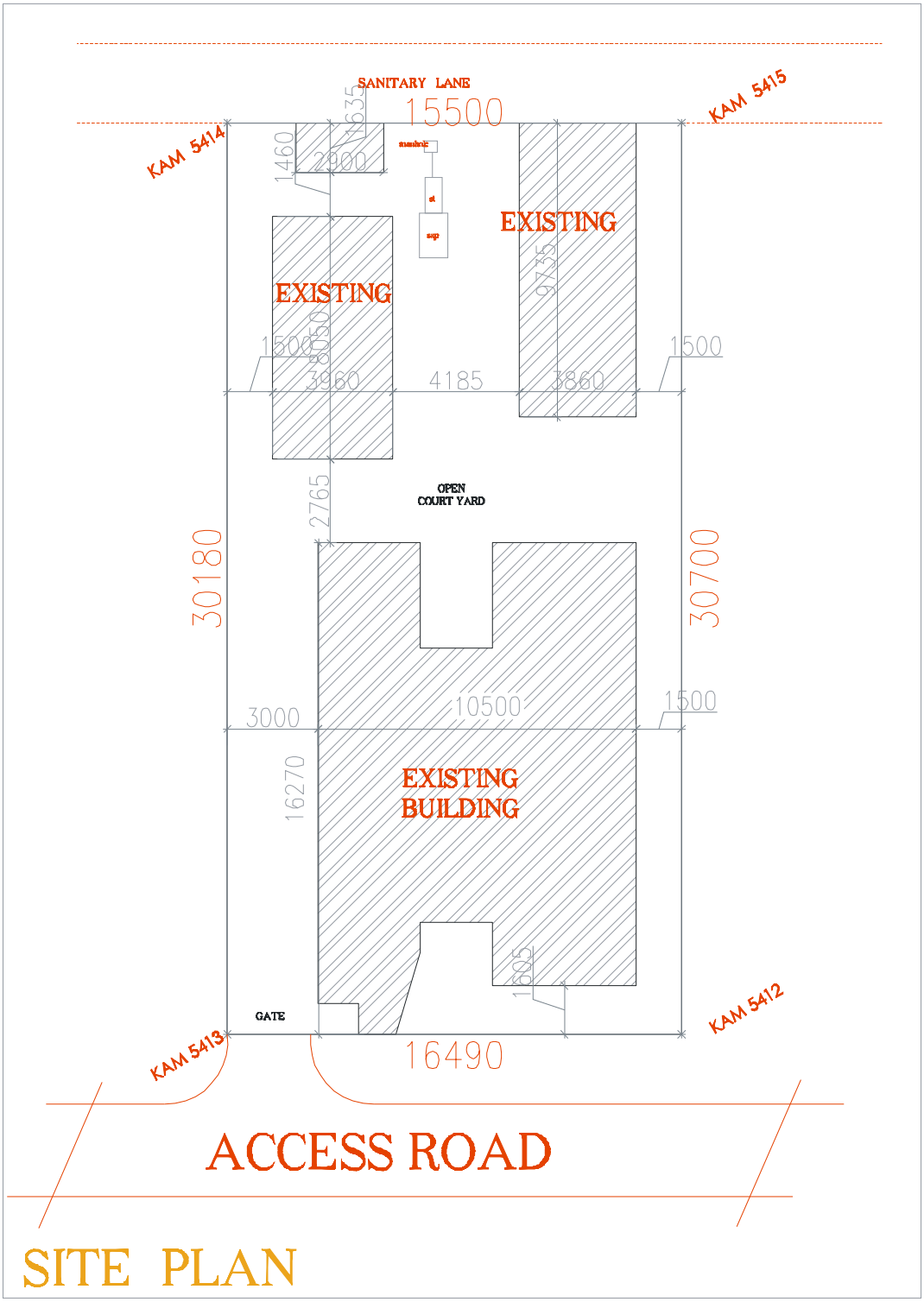


Fig 4.46 Sketches of site plan of case 22

The contraventions in this case are in terms of setback and distance between two buildings and the existing building was later reported i.e. approved.

The consequence will be in case of fire; spread will be easy and privacy will be affected. Parking too, is difficult to actualize.

4.17 SUMMARY OF IMPACT OF 22 DETAILED CASES

S/N	CASE NO.	CONTRAVENTIONS ON:-		EFFECT
		ARCHITECTURE	INFRASTRUCTURE	
1.	CASE NO. 1	Set back Development Ratio Building Without Approval	Parking Services	Fire Hazard (easy transmission). Road side parking will impede traffic flow. Sock - away and septic tank will be on road side parking will impede traffic flow.
2.	CASE NO.2	Set Back Building Without Approval	Services	No space for soak - away and septic tank hence likelihood of placement on road reservation, traffic flow and health hazard. As no prior approval, then anything can happen.
3	CASE NO. 3	Set back Ventilation Development Ratio.	Services	No space for SAP and ST. As no prior approval anything could happen at the construction stage. Ventilation problem.
4	CASE NO. 4	Set back Ventilation Building Without Approval	Services	No space for SAP and ST. As no prior approval, anything could happen during construction.
5	CASE NO. 5	Set back Privacy Development Ratio Ventilation Building without approval	-	Fire hazard (easy transmission). Ventilation is affected. As no prior approval, anything could happen during construction. Ventilation problem.
6	CASE NO. 6	Set back Cross ventilation Building with approval	-	Ventilation problem. As no prior approval, anything could happen during construction. Fire hazard.
7	CASE NO. 7	Building without approval	-	As no prior approval, anything could happen during construction.
8	CASE NO. 8	Building with approval	Parking	As no prior approval, anything could happen during construction. No parking space except road reservation.

9	CASE NO. 9	Building without approval. Distance between 2 buildings. Ventilation. Development Ratio	-	As no prior approval, anything could happen during construction. Fire hazard. Ventilation problem. Privacy encroached upon.
10	CASE NO. 10	Privacy. Distance between 2 buildings. Set back. Cross ventilation. Building without approval	Land use. Parking	Privacy encroached upon. Fire hazard. Ventilation problem. As no prior approval, anything could happen during construction.
11	CASE NO. 11	Building without approval. Distance between 2 buildings. Privacy. Development Ratio. Set back. Cross ventilation.	Parking. Services.	No parking space => down by the road side. SAP and ST => no space. Ventilation problem. Fire hazard.
12	CASE NO. 12	Building without approval. Set back. Privacy. Distance between 2 buildings. Ventilation. Change of purpose.	Services. Parking.	As no approval, anything could happen at construction stage. Ventilation problem. Privacy. Parking => change in use. Space for SAP and ST.
13	CASE NO. 13	Set back. Distance between 2 buildings. Room size. Development Ratio. Cross ventilation.	Services. Land use Parking	No prior approval. Parking => change in use. Space for SAP and ST. Room sizes not to standard. Ventilation problem.
14	CASE NO. 14	Building without approval. Development Ratio. Privacy. Set back. Ventilation. Room size.	Services. Parking. Land use.	No prior approval. SAP and ST => no space. Parking => change in use. Ventilation problem. Room sizes. Fire hazard.
15	CASE NO. 15	Distance between 2 buildings. Set back. Room size. Building without approval. Ventilation.	Parking. Land use.	No prior approval. Parking => change in use. Ventilation problem. Fire hazard. Room sizes.
16	CASE NO. 16	Set back. Development Ratio. Building without approval.	Parking. Services.	Parking problem due to over development No prior approval. Fire hazard. SAP and ST => no space.

17	CASE NO. 17	Distance between 2 buildings. Ventilation. Room sizes. Building with approval.	Land use. Parking.	No prior approval. Fire hazard. Ventilation problem. Room size => not to standard. Parking => change in use. Room sizes.
18	CASE NO. 18	Set back. Development Ratio. Ventilation. Building without approval.	Services. Parking.	No space for SAP and ST. Parking not provided. Ventilation problem. Fire hazard.
19	CASE NO. 19	Set back. Development. Ratio. Ventilation. Building without approval. Privacy.	Land use.	Parking => change in use. Fire hazard. Ventilation problem. No prior approval. Privacy.
20	CASE NO. 20	Distance between 2 buildings. Set back. Cross ventilation. Building without approval.	-	No prior approval. Fire hazard. Ventilation problem. Privacy.
21	CASE NO. 21	Set back. Distance between 2 buildings. Development Ratio. Building with approval. Ventilation.	Services. Land use.	No space for SAP and ST. Privacy. Fire hazard. Ventilation problem.
22	CASE NO. 22	Distance between 2 buildings. Development Ratio. Privacy. Ventilation. Building without approval.	Parking.	No prior approval. Parking no space. Privacy. Ventilation problem.

Table 4.10. Summary of Impact of 22 detailed cases.
Sources: Author's Field Work 2011

4.18 ANALYSIS OF DETAILED CASES

Base on the table 4.10, the following is the percentile analysis of the data collected from 22 no. cases with effect on

1. Architecture.

i. Setback - $^{19}/_{22}$ x 100 = 86.4%

ii. Building without Approval - 100%

iii. Development Ratio - $^{13}/_{22}$ x 100 = 59.1%

iv. Ventilation	-	$^{17}/_{22}$ x 100 = 77.3%
v. Privacy	-	$^{10}/_{22}$ x 100 = 45.5%
vi. Distance between two Buildings	-	$^{10}/_{22}$ x 100 = 45.5%
vii. Room Sizes	-	$^{4}/_{22}$ x 100 = 18.2%
2. Infrastructure		
i. Parking	-	$^{13}/_{22}$ x 100 = 59.1%
ii. Sources	-	$^{11}/_{22}$ x 100 = 50%
iii. Landuses	-	$^{7}/_{22}$ x 100 = 31.8%

4.19. SATELLITE IMAGES AND PICTURES

A number of satellite images and pictures have been considered in order to relate the current situation and contraventions in relation to the effect on the Environment, more especially in term of setback, over – development, problem of parking and services.

Areas where images have been provided are as follows and in accordance with identified areas of this study:-

i. Sabon Gari.	-	Fig. 4.47	Plate 1.0
ii. Dorayi Babba	-	Fig. 4.48	Plate 1.1
iii Kofar Ruwa	-	Fig. 4.49	Plate 1.2
iv. Badawa	-	Fig. 4.50	Plate 1.3
v. Na'ibawa	-	Fig. 4.51	Plate 1.4



Fig. 4.47 Sabon Gari Satellite Image
Source: Google Earth 2013



Plate I Sabon Gari Area Sample Picture
Source: Filed Work



Fig. 4.48 Kofar Ruwa Satellite Image
Source: Google Earth 2013



Plate II Kofar Ruwa Area Sample Picture
Source: Filed Work



Fig. 4.49 Dorayi Babba Satellite Image
Source: Google Earth 2013



Plate III Dorayi Babba Area Sample Picture
Source Filed Work



Fig. 4.50 Badawa Layout Satellite Image
Source: Google Earth 2013



Plate IV Badawa Area Sample Picture
Source: Field Work



Fig. 4.51 Na'ibawa Layout Satellite Image
Source: Google Earth 2013



Plate V. Na'ibawa Area Sample picture
Source: Google Earth 2013

From the foregoing, Figures 4.47 – 4.51 and plates 1.0 – 1.3 are satellite images and pictures respectively in respect of above five areas mentioned where Sabon Gari is commercial cum Residential developments while, others are largely residential.

It can be adduced from the images the overdevelopment of most of the plots as well as not observing set back officially accepted by Planning approval Agency.

The implication of above, is that ventilation will be affected so also easy spread of fire when it occurs. In a similar vein, parking facilities are affected as the likelihood is parking on road side especially visitors and location of soak away put on road reservation. It is noteworthy that most of the roads provided are without provision of parking on road side.

On the whole, the images helped to confirm the detailed 22 cases considered and their implications.

4.20 SUMMARY

The 22 no cases so far studied, it was observed that the impact on building regulation on architecture where building without approval accounted for 100%, set back 86.4%,

development ratios (overdevelopment) 59.1% and parking 72.72%. Other impacts were privacy accounted for 45.5%, problem of ventilation 77.3% and room sizes accounted for 18.2%.

On the other hand, impact on Infrastructure where problem of parking accounted for 59.1%, effect on services 50% and change of use accounted for 3.1%.

Also, the owners/occupants defy provision of land use by unilateral change of purpose of buildings especially in Sabon Gari Area, set back which results into problem of ventilation, fire hazard and privacy is very prominent in virtually all the cases considered.

Furthermore, parking appears to be pushed to the background in most of the cases.

To buttom the impact on both architecture and infrastructure satellite image of some areas have been used specifically Fig. 4.47 – 4.51.

CHAPTER FIVE

DISCUSSION, RECOMMENDATION AND CONCLUSION

5.1 DISCUSSION

The study assessed the impact of contravention of development control regulation of mixed land use areas of Kano Metropolis. A pilot study was undertaken in Sabon Gari, Fagge Local Government where in 20 years from 1990 – 2009 a total of 287 cases recorded case 61 no. As approved, 216 no. Not approved and 10 nos. who complied with notices. This gave a 25.26% defaulters in only 21.25% such for approval while 3.48% and cases who comply with notices served. This confirmed contravention of development control regulation.

The ten (10) identified areas were considered and assessed through archival method.
While questionnaires were in 3 groups; Owners/occupants, principal officers of the Agency and consultants who forwarded drawings to the Agency for approval were considered in order to answer the Object II i.e impact of the contravention.

The result of the exercise is in two parts where the first part has 1348 files assessed for either approval or notices served in 20 year period. The approvals within the period were 773 and 575 notices served. This gives a picture of 57.3% approval while 42.7% notices given or not approved but built. This confirms contravention of almost 45% of developments.

The second part was the questionnaire which is to answer the impact of contravention of development control regulations. The questionnaire on owner/occupants was responded by 410 while 700 no. were administered. This shows 58.57% respondents.

Similarly, that which was administered to principal officers was 25nos and response were 18nos which implies 72% responses. Finally, responses from consulting architects were 13 nos from 25 administered questionnaires which imply 68% responded.

Moreover, detailed/specific cases were considered through files of KNUPDA where the drawing details of 22 defaulters were randomly selected and analyzed. The basis of analysis of the contravention were documents, drawings, action taken and effect of contraventions on architecture, environment, utilities/sources of aspect adduced for such developments.
The selection criteria of these files (22) were available documents, spread and nature of contraventions.

It is based on these aspects considered from literature review, methodology, results and analysis and discussion on results makes up this study on Assessment of Contravention of Development Control Regulations of mixed land use in Kano Metropolis.

5.2 CONCLUSION

The study assessed contravention of development control regulations in mixed land use areas of Kano metropolis and confirmed that contravention exists to a level of about 45% from files of KNUPDA and it also revealed that increase in enforcement increases the defaulter's awareness to comply.

From the questionnaires administered, the identified contraventions are setback, site development ratio, building without approval and land not in conformity to approved land use. Also professional advice is always sought after defaulting on the development control regulations.

On the other hand, the impact of contravention from the questionnaire is lack of enforcement by the Agency, Cumbersome process of obtaining building plan approval process, at high charges and taking too long to obtain the approval.
Others are lack of awareness of building laws, Nigerian factor, lack of publicity and absence of monitoring compliance.

The impact of the contravention is in terms of the architecture, Infrastructure and services where setback was prominent followed by others where ventilations, privacy and parking were mostly effected.

Consequences of these will avail itself in case of fire hazard, spread will be easy and difficulty will arise when fire engine arrives. Similarly, parking of vehicles will take place on road reservation which will ultimately impede traffic flow and above all quality of the environment and the occupants will be affected. Cases in point are the specified or detailed 22 cases where detailed drawings have been provided and contraventions with effect provided to confirms the impact and its effect.

The study availed and answered the research questions so also the objectives and it revealed that increase in enforcement leads to increase in compliance. Also guidelines on building plan approval process has been identified which confirms model to be expanded or otherwise for development control Agency.

5.3 AREAS FOR FURTHER RESEARCH

The study undertaken was limited to Kano Metropolis based on consideration of populations' growth of Kano, fast growth of building development and length of use of building development regulations. Similarly, only planned area and mixed land use were considered as the walled city of Kano and Unplanned areas were not.

Similarly the study undertaken by Hassan (1982) where he argued that the existing development control system is inefficient. This clearly shows the tools used for development control are not effective and subsumes that the practice in Kano Metropolis is by far below expected standard.

Generalized statement based on the study may pose questions such as why contravention of building regulation? What type of contravention exists in Kano Metropolis? And what are the likely consequences in the Architecture and infrastructure?

As identified from the study, the reasons adduced for contravention were lack of enforcement of regulation, lack of awareness of the regulations and others on a lower scale. Also it was confirmed that contravention exists and the types of contravention of high level were set – back, lack of parking and development ratio.

On the other hand consequences of these contraventions were fire spread will be faster due to set – back, privacy too will be affected and cross ventilation due to over development.

It is certain that Kano has its peculiarities and the statistical tools used and the change, frequency tables and mean values are ways that provide the existence and consequences of contraventions out the limitation makes the study dynamic where other areas of study could be in terms of standards or building regulations responding to the needs and socio – cultural values of the people, the concept of Building Regulations whether it reduces contravention or not, areas where the whole city is planned i.e. there is no unplanned areas and reassessing the tools of development control in planned areas.

5.4 CONTRIBUTION TO KNOWLEDGE

The study was able to achieve or answered the questions of contraventions of development control regulation where it was confirmed that it exists. The whole idea of undertaking the study was to find out why we register contravention especially the developing world while it is not common in the developed world.

Development standards are guides to help achieve planned and organized land use and have facilities that will make livelihood comfortable and failure to have that will create negative consequences and hazard to the ways we live.

It was observed from the detailed and specific cases undertaken of 22 number developments that, basically the contraventions were setback, parking, development ratio and unavailable space for services. Also consequences are the effect on Architecture and services.

Similarly, the questionnaire confirmed the finding as per the detailed specific cases and reasons adduced for same. In as much as categorical statements can be made but with questions due to limitation of the study, it can now be confirmed the existence of contravention of development control regulations and its consequences which requires intervention of government through proper monitoring, creating awareness in respect of the regulation while failure will simply create unorganized physical development with only growth but not development.

5.5 RECOMMENDATIONS

Based on the study undertaken, the following are some recommendations:

1. Enforcement of development control regulations will help in reduction of contraventions of same as revealed that if enforcement is increased by the Agency, Compliance increases too.

2. Awareness Campaign must be mounted so that public should know what contravention is and what is not. Similarly, it could be done through schools, mosques, churches and any available gathering to implore on people to know why they should comply with the Building Bye – laws and regulations.

3. The process of approval should be simplified through use of professionals from proposals to completion. Also, the regulations should be updated regularly as that of Kano has not been updated since inception in 1988.

   It is important to take cognizance of the societal needs in the review of the regulations.

4. Layouts should be produced and implemented. This can only be achieved through good land administration. It will go a long way in constructing the right structures in the right places and the abuse of purpose clause will be reduced. Also, it should take cognizance of the needs of people in the locality.
5. Existing structures need to be addressed, that is, those are within the planned areas, but without approved building plans, through regularization of such developments. Working modalities should be put in place to tackle this item so that general decision can be taken harmoniously.
6. The Agency responsible for building plan approval must be in tune with growth in population which results into Urban growth, then Urban development must be entrenched through proper implantable laws and regulations.
7. Roles of various organizations responsible for regulation of practices in our urban environment such as Architects Registration Council of Nigeria (ARCON), Council of Registered Engineers of Nigeria (COREN), Town Planners Registration Council of Nigeria (TOPREC), Council for the Registration of Building of Nigeria (CORBON), e.t.c, should be clearly spelt out.

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APPENDICES

APPENDIX I – Questionnaire on Contravention for Owners/Occupants

APPENDIX II – Questionnaire on contravention for consultants.

APPENDIX III – Questionnaire on contravention for principal officers of KNUPDA

APPENDIX I

QUESTIONNAIRE FOR PRINCIPAL OFFICERS OF KANO STATE URBAN PLANNING AND DEVELOPMENT ON:

"The Assessment of the Impact of Contravention of Development Control Regulation on some Areas of Kano Metropolis".

Preamble

The researcher is a Ph D student of the Department of Architecture, Ahmadu Bello University, Zaria.

The research is geared towards identifying the causes of Development Control Regulation Contraventions in Kano Metropolis

I. Your Organization

1. Which Department do you belong?.....
2. What is your designation?.....
3. How long have you been in the Authority?.....

II Working methods of the Authority

1. What is your departmental schedule?.....
2. Are you involve in Development Control Activities Yes ☐ No ☐
3. Are you comfortable with the methodology of development control activities?

   Yes ☐ No ☐

III. **Response of Public to the activities of your Authority**

1. Are the developers/consultants responsive to the activities of the authority?

   Yes ☐ No ☐

2. Any likely percentage of the response?

   Above 70% ☐ 50-70 ☐ Below 50 ☐

3. Do the public apply for building plan approval before start of development

   Yes ☐ No ☐ Most ☐ Few ☐

4. What is the likely percentage of response to notices when served?

   Above 70% ☐ 50-70% ☐ Below 50% ☐

IV. **Responses to Laws and Regulations**

1. Are the drawings forwarded for building plan approval produced according to Laws and Regulation guiding some? Most Few ll ne
2. If queries or tions are h to applicants, what is the response?
   None Positive Negative
3. What are the most common problems noticed from drawings forwarded for approval?.....
4. Do you relax some of the regulation for any reason? Yes No

V. **Responses nduse, Zoning and Regulation**

1. Do the Public respond or respect Landuse and Zoning Regulations
   Most Few None
2. What are the most common Landuse abuse?.....
3. Any likely percentage of the abuse?
   Above 70% 50-70 Below 50
4. What are the likely reasons for the abuses?.....
5. Are the regulations on Landuse Zoning effective? Yes No
6. If not why? (Specify)……

VI **Responses to Developments Control Method**

1. Are the methods outlined in the regulations adequate?
   Mostly adequate fairly adequate Not adequate
2. Do the public respond to your notices positively No Yes
3. What are the problems impeding your work?.....
4. Any suggestion to move forward?.....

VII. Impact of Contraventions of Development Control Regulation

1. How does the Contraventions of Development Control Regulation impact on the environment, the buildings, services, quality of habitability, aesthetics e.t.c?.....
   ……..
2. Does it have any impact on the economy? Yes No

VIII. Can you adduce reasons for contraventions of Development Control Regulation inKano……
……..…
……..

Thank you

Arc. Sani Ibrahim Khalil (fnia)

APPENDIX II

QUESTIONNAIRE ON CONTRAVENTIONS FOR OWNERS/OCCUPANTS IN THE BUILDING INDUSTRY

"The Assessment of the Impact of Contravention of Development Control Regulation on some Areas of Kano Metropolis".

I. Preamble

The researcher is a Ph D student of the Department of Architecture, Ahmadu Bello University, Zaria.

The research is geared towards identifying the causes of Development Control Regulation Contraventions in Kano Metropolis.

As an owner/occupant of building structure identified for the study, your earnest response is appreciated and will be treated confidently.

II. Your Building

1. Are you aware whether an architect was employed for your building?
   Yes ☐ No ☐
2. When was your building constructed/parked in?
   Less than 5years ☐ 5-10years ☐ 10years and above ☐
3. Among the following, which category is your building?
   Housing ☐ Commercial ☐ Housing/Commercial ☐
   Industrial ☐

III. Building Plan Approval

1. Are you aware whether approval was sought before construction of the building you now occupy? Yes ☐ No ☐
2. If yes, how long did it take to obtain the building plan approval?
   Less than 2 weeks ☐ 2 to 6 weeks ☐
   6-12 weeks ☐ 12-20 weeks ☐
   More than 20 weeks ☐
3. What reasons account for the delays in approval of your proposal?
   Design not meeting requirement ☐
   Set-back not meeting minimum requirement ☐
   Landuse not conformed to ☐
   ☐

Plot development ratio too high for the area

Other reasons, (Specify)……..

4. As a developer, did you utilize professional

Yes ☐ No ☐

5. Are the fees charged?

High ☐ Low ☐

6. At the design stage, do you have a brief? Yes ☐ No ☐

7. Do you know whether building approval is necessary? Yes ☐ No ☐

8. Did you start your building before approval is obtained? Yes ☐ No ☐

9. Is the process for approval cumbersome? Yes ☐ No ☐

10. Are approval items required difficult to meet? Yes ☐ No ☐

11. Is the approval fees too high? Yes ☐ No ☐

IV. Construction of proposed building plan For your proposed building plans approved, are you involved in?

1) Supervision of the construction will take place Yes ☐ No ☐

2) Do you have cause to request for changes of the approved drawings through the professional? Yes ☐ No ☐

3) Where such changes reported to the Agency that approved the Building plans?

Yes ☐ No ☐

V. Design Process

1. As a developer, where you involved in the Design process?

Yes ☐ No ☐

2. In what ways were you involved?

Preparation of Design Brief ☐

Vetting of presentation drawing ☐

Approval of Construction Drawing ☐

3. Were you, as a developer, adequately informed of the design proposal?

Yes ☐ No ☐

VI. Contravention of Development Control Regulation

1. Has you proposed building during construction contravened any Development Control Regulations? Yes ☐ No ☐

2. What was the nature of Contravention?

Set back not adequate ☐

Landuse does not conform to approved landuse ☐

Not enough parking spaces ☐

Building plan not approved ☐

Building height not as recommended ☐

Plot development ratio not as recommended ☐

Other (specify)……..……..

3. Were you advised by the professional of how to resolve the issue of contravention?

Yes ☐ No ☐

4. How was the issue resolved?

Rectifying the anomalies identified in the drawing ☐

Paying a fine ☐

Change of Landuse ☐

VII. Impact of Contravention of Development Control Regulation.

1. Does the contraventions of Development Control Regulation impact upon?

Parking provided ☐

Cross-ventilation ☐

Privacy ☐

Others (specify)…….……

VIII. Can you adduce reasons for contravention of Development Control Regulation in Kano?……
……
……
……

Thank you.

Arc. Sani Ibrahim Khalil (fnia)

APPENDIX III

QUESTIONNAIRE ON CONTRAVENTIONS FOR CONSULTANTS IN THE BUILDING INDUSTRY

"The Assessment of the Impact of Contravention of Development Control Regulation on some Areas of Kano Metropolis".

I. Preamble

The researcher is a Ph D student of the Department of Architecture, Ahmadu Bello University, Zaria.

The research is geared towards identifying the causes of Development Control Regulation Contraventions in Kano Metropolis.

As a professional in the Building Industry, your earnest response is appreciated and will be treated confidently.

II. Your Practice

1. Do you have a registered architect? Yes ☐ No ☐
2. For how long have you practice in Kano Metropolis
   Less than 5 years ☐ 5-10 years ☐
   10-20years ☐ More than 20 years ☐
3. For how long was the practice established
   Less than 5 years ☐ 5-10 years ☐
   10-20years ☐ More than 20 years ☐
4. Are you registered to submit drawings for approval Yes ☐ No ☐

III. Building Plan Approval

1. Have you at any time submitted your drawings for Building plan approval in Kano Metropolis? Yes ☐ No ☐
2. Where you able to obtain Building plan Approval for
   Few of the Drawings ☐
   Most of the Drawings ☐
   All the Drawing submitted for approval ☐
3. On the average, how long did it take to obtain the Building plan approval?
   Less than 2 weeks ☐ 2 to 6 weeks ☐
   6-12 weeks ☐ 12 – 20 weeks ☐
   ☐

More than 20 weeks

4. What reasons account for delay in approval of your Building plans?

Design not meeting requirement ☐

Set back not meeting minimum requirement ☐

Landuse not conformed to ☐

Landuse ratio too high for the area ☐

Other reasons, specify……

5. Please respond according to the scale given to the following questions

	Agree	Strongly Agree	Disagree	Strongly Disagree	Don't Know
i) Most developers do not utilize professional					
ii) Those who use professionals complain of high fees					
iii) Most develop do not have brief					
iv) Most developers do not think approval of building plans is necessary					
v) Some developers commence development before approval is obtained					
vi) The process for building plan approval is cumbersome					
vii) items required for approval are difficult to meet					
viii) The regulative are readily available for use by professionals					
xi) The specification in the					

regulations are difficult to comply with					

IV. Construction of building plan

For your building plans approved are you involved in?

1. Supervision of the Construction

   Most of them ☐ Few of them ☐ all of them ☐ none of th ☐

2. During construction that you supervised do you have cause to make changes in the approved drawing

   In few cases ☐ In most cases ☐ None at all ☐

3. If changes were made, what are the reasons for such changes?

   Client's request ☐ Design errors ☐ professionals wish ☐

4. Where such changes reported to the Agency that approved the Building Plans?

   In all cases ☐ most cases ☐ Not at all ☐

V. **Design process**

1. Was your developer involved in the design process

   Not at all ☐ In some cases ☐ In most cases ☐

   In all cases ☐

2. In what ways where the developers involved in the design process

   Vetting of Presentation drawings ☐

   Preparation of Design Brief ☐

   Approval of Construction drawings ☐

3. Were the developers literate enough to understand your design proposals?

   Most were literate N ☐ vere not ☐

   Few were literate ☐ None was literate ☐

VI. Contravention of Development Control Regulations

1. Has any of your projects been said to contravene Development Control Regulations? Most of them ☐ All of them ☐

Few of them ☐ None of them ☐

2. What was the nature of Contravention

Set back not adequate ☐

Room sizes not adequate ☐

Landuse does not conform to approved landuse ☐

Not enough parking spaces ☐

Building plan not approved ☐

Building height not as recommended ☐

Other (specify)……..……..

3. How did you resolve the issue of contravention

Rectifying the anomalies identified in the drawing ☐

Paying a fine ☐ Change of Landuse ☐

VII. Impact of Contravention of Development Control Regulation.

1. How does the contraventions of development control regulation impact on the environment, the building services, quality of habitability, aesthetics e.t.c……

……

2. Does it have any impact on the economy? Yes ☐ No ☐

VIII. Can you adduce reasons for contravention of Development Control Regulation in Kano?

……
……
……

Thank you.

Arc. Sani Ibrahim Khalil (fnia)