



## Research Development of the Ikenga Residence (Six-Bedroom Duplex) at Iheagu Nru Village, Nsukka L.G.A., Enugu State

Okechukwu, Chinwe Nnenna<sup>1</sup>, Egbo, James Chinweuba<sup>2</sup>, Oku, Onyeibo C.<sup>3</sup>

<sup>123</sup>Department of Architecture, Enugu State University of Science and Technology, Enugu

### Abstract

*This paper described step by step research design and development of the Ikenga residence at Iheagu Nru village, Nsukka L.G.A., Enugu State. The study used case study, literature review and field study method used to obtain various data from various primary and secondary sources on Igbo cultural heritage. Purposive (non-probability) sampling technique was used to obtain data for this research. The result showed that the conceptual integration of elements of cultural symbolism in architectural designs will not only lead to iconism in Architecture but also provide the psychological basis for comfort.*

**Keywords** Research Development; Ikenga Residence; Symbol of Strength; Igbo Cultural Heritage

**Citation** Okechukwu, C. N., Egbo, J. C. & Oku, O. C. (2023). Research development of the Ikenga residence (six-bedroom duplex) at Iheagu Nru village, Nsukka L.G.A., Enugu State. *American Journal of Applied Sciences and Engineering*, 4(1), 12-23. DOI: <https://doi.org/10.5281/zenodo.7974818>



## Introduction

This project - The Ikenga Residence - was borne out of the Client's desire to develop his country home in Igbo land as a place of relaxation and rest from the yearly hustles and bustles of city life. The Ikenga is one of the most powerful symbols of the Igbo people in southeastern Nigeria and the most common cultural artifact. It symbolizes the "strength of one's right arm" or masculine potency, and the 'ability to achieve one's goals through one's efforts. IKENGA is an artifact that is a powerful symbol of the Igbo people (Bentor, 1988). It signifies the power and strength of the right hand. It is a wooden, horned, male antiquity that is cylindrical. It is one of the most powerful symbols of the Igbo people and the most common cultural artifact. Ikenga is mostly maintained, kept or owned by men and occasionally by women of high reputation and integrity in the society. The Ikenga, a Symbol of Achievement is a personal embodiment of human endeavor, achievement, success, and victory (Umeh, 1999). Ikenga is grounded in the belief that the power for a man to accomplish things is in his right hand (Nwosu, 1983). It also governs over industry, farming, and blacksmithing, and is celebrated every year with an annual Ikenga festival. It is believed by its owners to bring wealth and fortune as well as protection (Bentor, 1988). The word "IKENGA" in consonance with its literal meaning has also formed the basis for the design description and development.

**Project goal and objectives:** The goal of the project was to design an elegant residential abode that denoted strength. This goal was achieved by the application of basic architectural principles and guidelines to create a functional and innovative design suitable to the Client's needs.

**Site location:** The site is located at Iheagu Nru Village, Nsukka L.G.A, Enugu State. Plot Size: 917.80 square meters.

## Literature

### A History of The Igbo People and The Traditional Christmas Return

People of other cultures often ask why Igbos do the seemingly mandatory yearly return to their homeland. It is something that even younger Igbo generations may ask. Some may assume that it is a more recent tradition. The history of Igbo and this tradition might be older than we assume. Before the era of itinerant blacksmiths in the Igbo society, there were dibias and peddlers of assorted wares who travel far from home in practice of their trade, these individuals would, in addition, take along items like ivory or any such tradable ware. Also, there were blacksmiths who did not venture so far from their communities (Umeh., 1997). In Awka community, every second month (corresponding to May/June of the Gregorian calendar) was the month of Ukwu feast- Ukwu was the deity of good fortune and patron of travelers- and every member of the community must return; When the Agulu (smith) section became established in Awka (around the 1st half of the 17th century) they made the seventh month (October/November) their own time of return (Onwuka., 1986). But the foregoing was perhaps necessary to explain how traditional Awka society undertake two waves of yearly returns but also stress that it is not only blacksmiths who made these travels. However, Awka was not the only blacksmith community in the Igbo society. There were other communities which developed their blacksmith trade just at the same time and below is what happens:

Most smithing communities celebrated their profession once a year- a few such as Umugwu Ekwom and Awka held it twice. The Abiriba called it "Emume Anya uzu"; Awka, Akputakpu; Nkwere, Oriri Ogadazu; and Udi, Eke Otutu or Akputakpu. The timing of the celebration varied, but generally this is between either December and March or August and October. It was mandatory for smiths on travel to return home for the celebration. The itinerant smiths bore this in mind and structured their work calendar to take account of it. Failure to return attracted severe penalty, except for excusable reasons. In such a case, the smith sent his own contribution for the purpose of making a sacrifice to the smithing deity. Failure to return on three consecutive seasons without any acceptable reasons led to the defaulter being banished from his town (Onwuka, 1986). The Awka and Nkwere celebrations were typical examples. In both places, the smiths' celebrations were fitted into the wider framework of other communal festivals. In Nkwere, Oriri Ogadazu was preceded by Oriri Ajimiri; oriri meaning a [feast]. Oriri Ajimiri was celebrated in honour of the ancestral deity of the Nkwere people, Ajimiri- it was an affair of all Nkwere people. Thankful sacrifices were made to the deity during the celebration for his protection of all Nkwere citizens at home and abroad during the last season. The celebration was characterised by social revelry and display of affluence (Onwuka, 1986). It was a festival of reunion of returning, travellers and the home-keeping ones. [The Akputakpu feast] was partly designed to ensure that occupational travels did not degenerate into mere wanderlust and that itinerant craftsmen, did not lose their

home roots. Awka elders must have been outraged by the foreign tatoos worn by the children of smiths returning with their parents from Igala. In Awka, the families of the smiths looked forward to the occasion with high hopes as they were certain to be showered with new and exotic dresses and ornaments. During the celebration, the wives of the smiths chanted and danced to the/rather provocative song whose message was "di agulu ka mma", meaning "a smith husband is the best" (Onwuka, 1986). The faces of mothers and little children in a simple 17th century Igbo community always glow with joy to see their kin again. Igbo ancestors have made the yearly mass return for centuries and the goals have not changed (Onwuka, 1986).

### **Concept Design (Place of Strength)**

The concept design was derived from the project goal which aimed at the creation of a pure and simple structure which denotes strength and in a relaxing and peaceful environment. This was achieved by the use of simple geometrical rectangular forms which best suited the configuration of the project on the site. Along with the use of iconic Architectural elements like columns to symbolize strength. The concept design also ensured that the project's requirements of cost certainty, statutory and regulatory compliance were met.

### **Materials and Methods**

Case study, review of literature and field interview were used to appraise and conduct the research based on the Client's statement of need. Due to the peculiar characteristics of this study concept, the non-probability sampling technique was used in selecting the sample size of this study. Under this, Purposive sampling method was employed because to assisted in selection of sample size of the study with special characteristics under study which will help in achieving the goal of this study. Both primary and secondary data were collected through review of related literatures and during field studies.

### **The Brief**

To develop an ideal residential building design that is iconic, denotes strength, and suite the client's statement of needs.

### **Design Requirements**

**Spatial requirements:** The spaces provided for included the following:

#### **On the ground floor:**

1. Car port with Entrance foyer
2. Ante room with guest's W.C.
3. Main lounge
4. Utility
5. Dining
6. Terrace with veranda
7. Kitchen with store
8. Guest room with toilet
9. Maid's room with toilet
10. Stair hall
11. Lobby

#### **First Floor Plan**

1. 5 bedrooms all in-suite
2. Private lounge
3. Family Lounge
4. Balconies with void
5. Kitchenette
6. lobby

**Technical requirements:** The following technical requirements were considered during the briefing:

- I. Design for optimal thermal comfort ensuring that the rooms are cross ventilated with adequate natural lighting.
- II. The use of reinforced concrete as the structural element.
- III. The type of finishes desired by the Client.

**Table 1: Distribution of Space Requirements**

S/N	Activity of Space Schedule	Space Requirements (m <sup>2</sup> )	Percentage Distribution (%)
<b>1.</b>	<b>Total Site Area</b>	<b>917.80</b>	
<b>2.</b>	<b>Ground Floor Plan</b>		
	Car port with Entrance foyer	28.66	
	Ante room with guest's W.C.	9.16	
	Main lounge	32.30	
	Utility	9.87	
	Dining	11.16	
	Terrace with veranda	14.16	
	Kitchen with store	25.56	
	Guest room with toilet	22.72	
	Maid's room with toilet	20.84	
	Stair hall	10.94	
	Lobby	12.29	
	<b>Total</b>	<b>197.66</b>	
<b>3.</b>	<b>First Floor Plan</b>		
	5 bedrooms all in-suite	119.27	
	Private lounge	11.42	
	Family Lounge	14.29	
	Balconies with void	22.41	
	Kitchenette	5.87	
	lobby	24.40	
	<b>Total</b>	<b>197.66</b>	
<b>4.</b>	<b>Landscaped Area</b>	<b>720.14</b>	<b>78.46</b>
<b>5.</b>	<b>Area of Plot developed</b>	<b>197.66</b>	<b>21.54</b>
	<b>Total</b>	<b>917.80</b>	<b>100</b>

**Source:** Author's field work (2014)

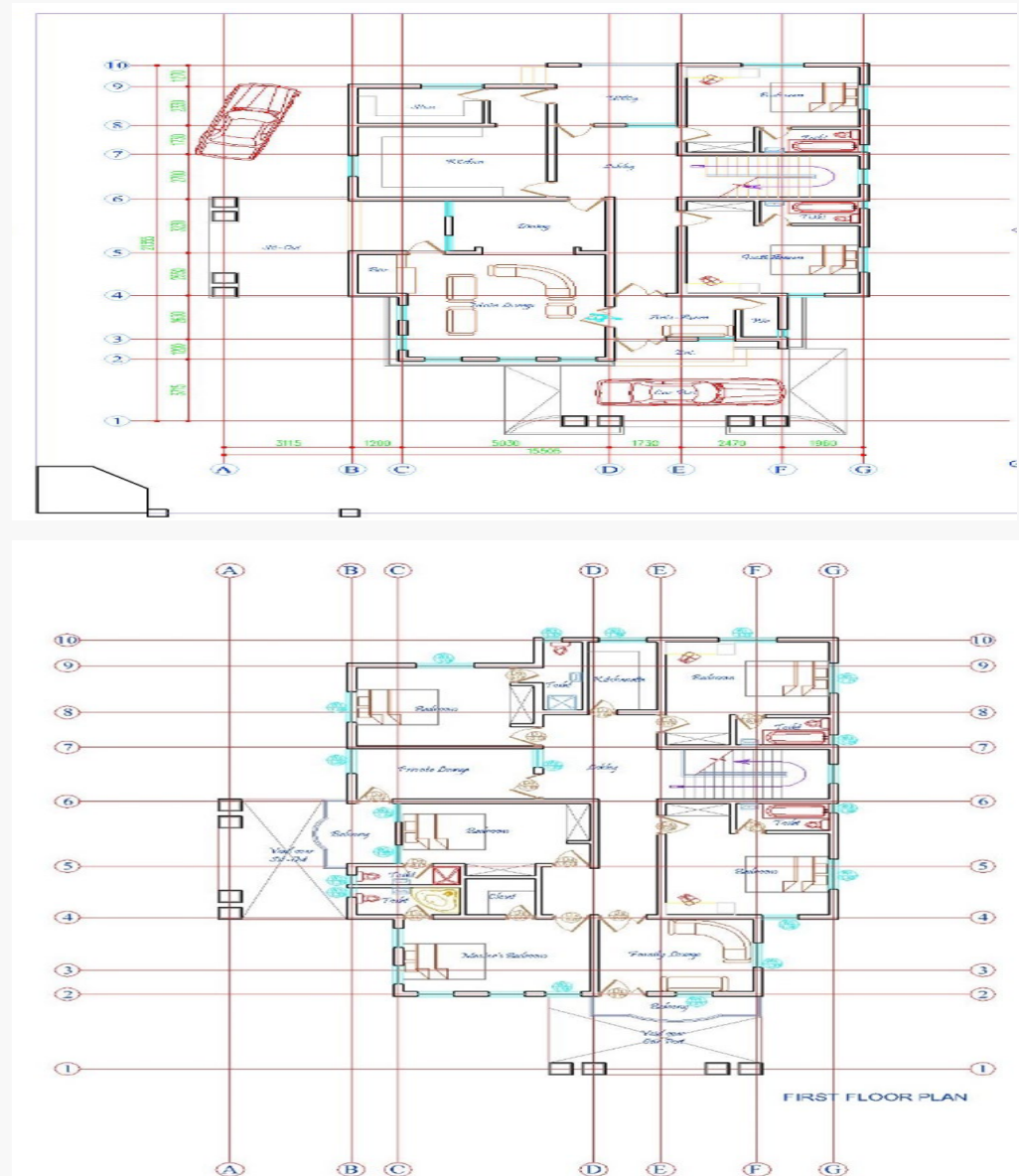
## Results and Discussions

### Design Development

#### Stage 1a: Preliminary Design

Site development and Analysis: a comprehensive analysis of the site was presented in a schematic diagram, showing the prevailing site conditions necessary for proper building orientation.

#### Stage 1b: Sketch Design



**Fig. 1: Full scale Drawing in Presentation Form**





Fig 2: 3D Presentation Drawing.



Fig 3: 3D Presentation Drawing

**Stage 2: Production drawings and detail designs**

Production of working drawings and graphical presentation of the drawings with appropriate dimensions, annotations and specifications. Following the Coordinated Project Information (CPI) minimum information requirement for Architectural Working Drawings; which comprises of: Site plan, Floor plans, Ceiling plans, Roof plans, Sections, Elevations, Schedules and Details, See the appended Architectural working drawings.

**Conclusion**

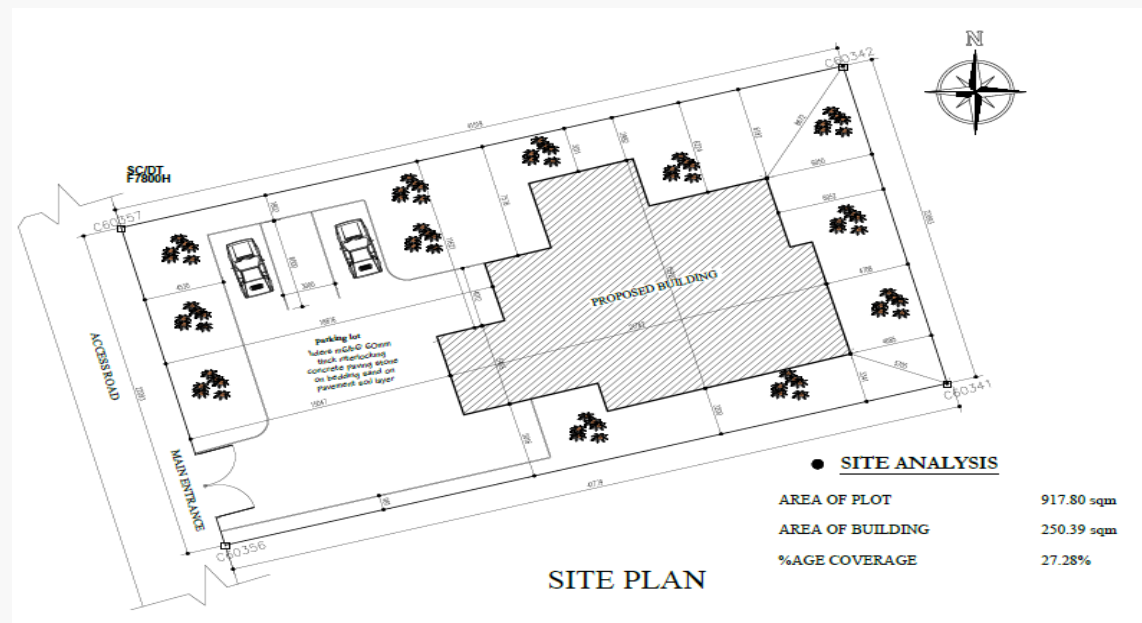
This study's concept of the IKENGA residence was a well-articulated ideology which inspired the research to achieve comfort and Iconism in Architecture through the integration of conceptual Igbo cultural elements to produce a design that will both depict "a place of strength", respect the context of the surrounding townscape and be a great addition to the thriving development of the town of Iheagu Nru Village, Nsukka L.G.A, Enugu State.

**References**

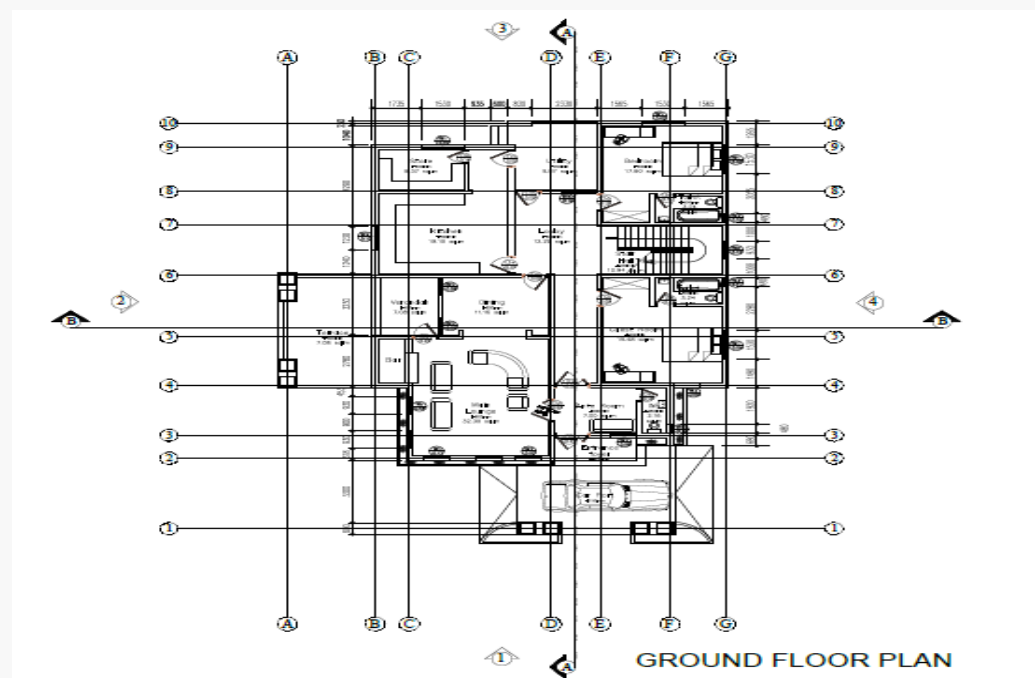
- Bentor, Eli. (1988). Life as an Artistic Process: Igbo Ikenga and Ofo, *African Arts*, Vol. 21, No. 2, pp. 66–71+94.
- Nwosu (1983) *Ndi Ichie Akwa Mythology and Folklore Origins of the Igbos*; pp 88.
- Onwuka, N. N. (1986). A History of Iron Technology in Igboland C; 1542 to 1900.
- Umeh, John (1997). *After God is Dibia Volume 1*. pp 146
- Umeh, John. (1999) *After God is Dibia Volume 2*

## APPENDICES

### Appendix 1

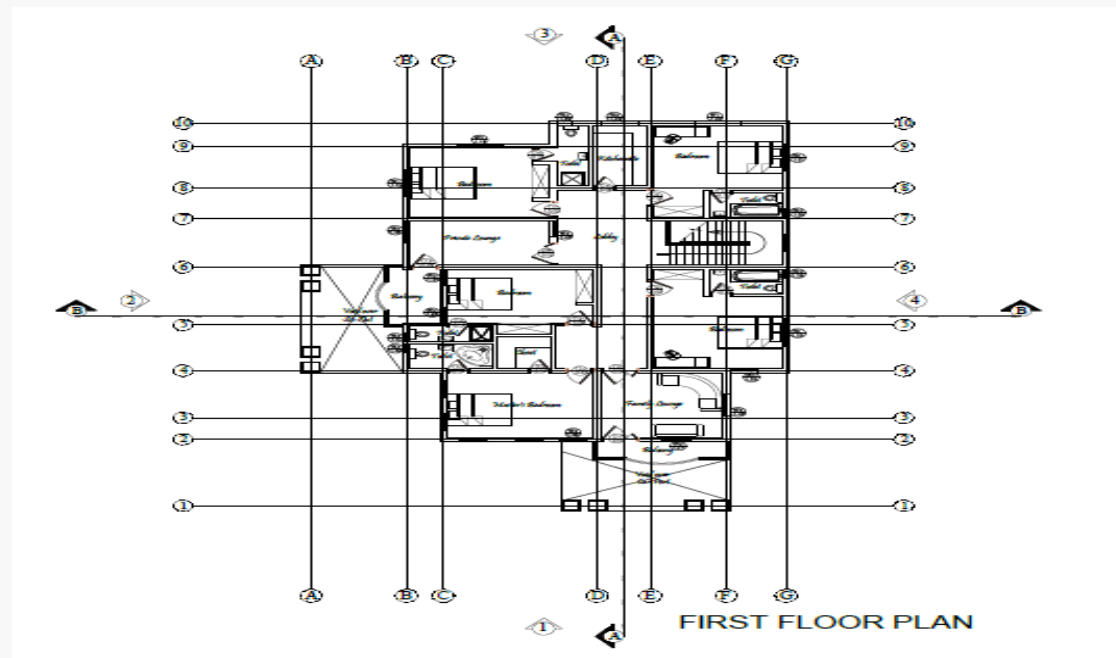


### Appendix 2

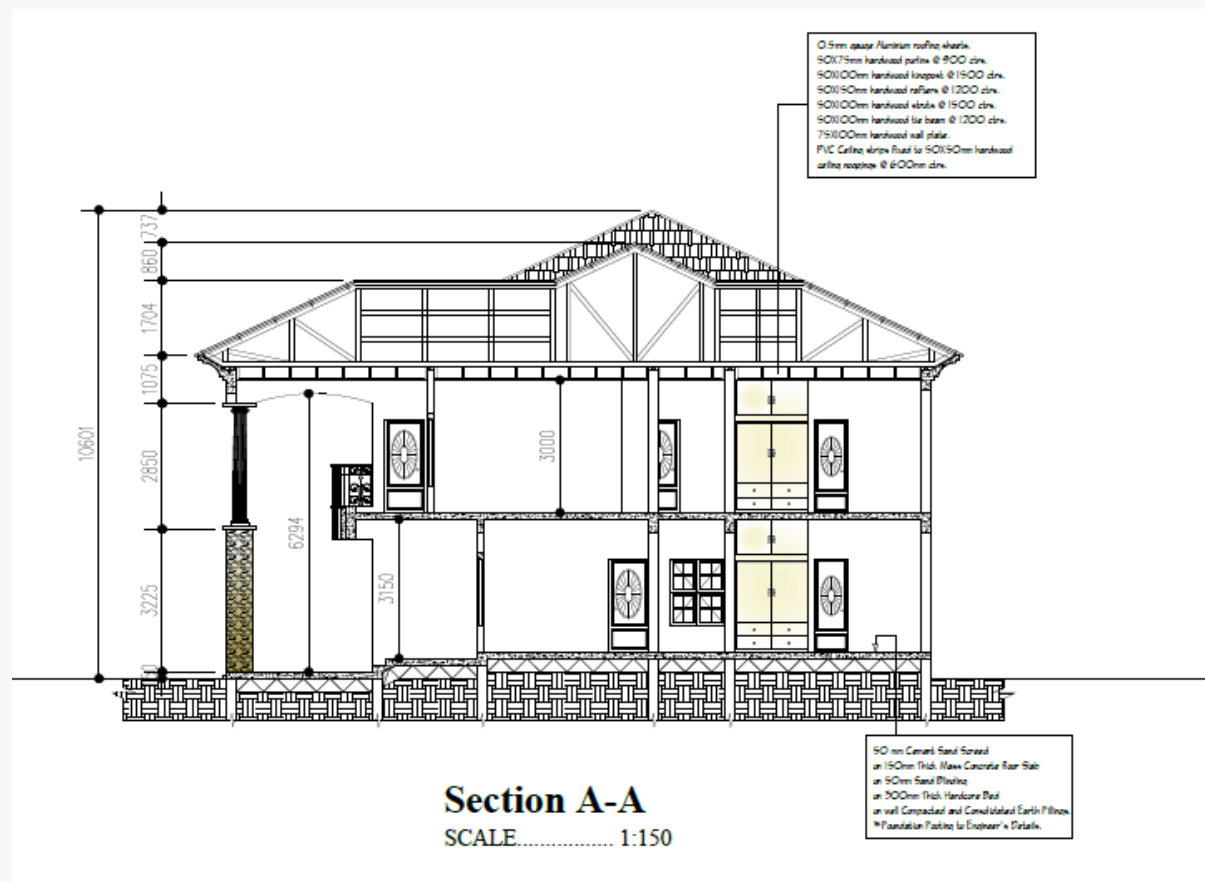




### Appendix 3

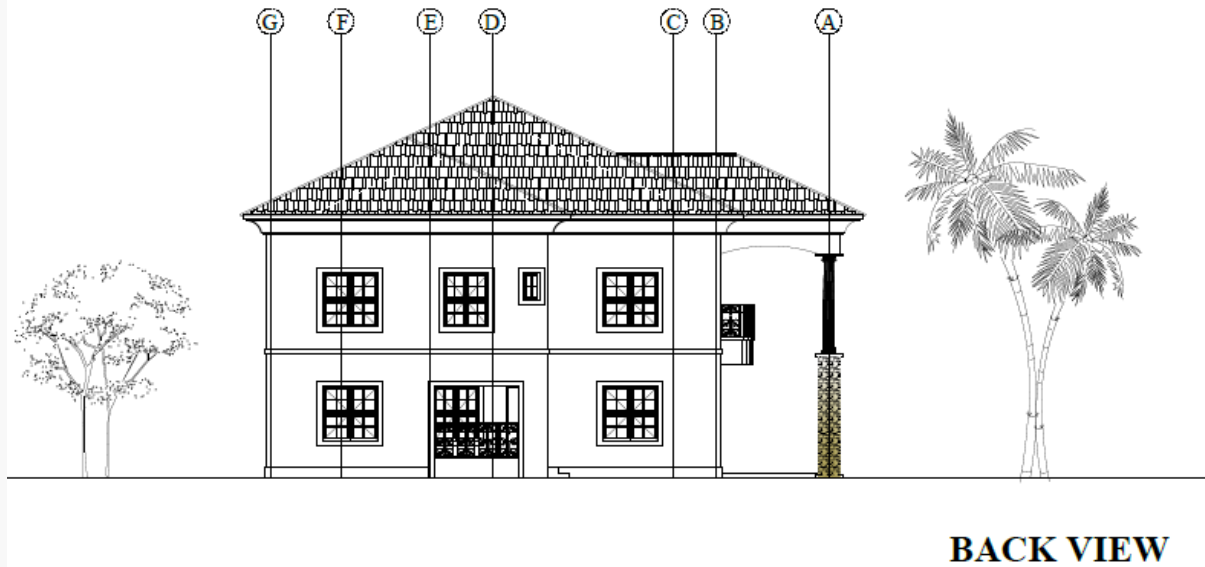


### Appendix 4





**Appendix 7**



**Appendix 8**



**Appendix 9**

