ESTIMATING AND BUDGETING FOR A SMALL SCALE BUILDING

(A CASE STUDY OF A PROPOSED RESIDENTIAL BUILDING OF OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLADELE LOCATED AT ALAGBA LAYOUT, IDO LGA, OYO STATE)

BY

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BEING A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF QUANTITY SURVEYING, INSTITUTE OF ENVIRONMENTAL STUDIES, KWARA STATE POLYTECHNIC, ILORIN.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF HIGHER NATIONAL DIPLOMA (ND) IN QUANTITY SURVEYING

JULY, 2025

CERTIFICATION

I certify that this project was carried out by ANIMASAHUN FAROUK AYOMIDE, AJASA SAMAD ALABI, AREMU BUKOLA ELIZABETH with matriculation number ND/23/QTS/FT/0004, ND/23/QTS/FT/0005, ND/23/QTS/FT/0006 respectively as meeting the requirement for the award of National Diploma in the department of Quantity Surveying, Kwara State Polytechnic, Ilorin.

Abdulrahman — 25-07-2025

QUESS.MR. ABDULRAHMAN, B.S — **Date**
Project Supervisor

_____ — _____

QUESS. — **Date**
Project Co-ordinator

_____ — _____

QUESS. SIDIQ LATEEF — **Date**
Head of Department

_____ — _____

External Supervisor — **Date**

DEDICATION

This project is dedicated to Almighty God who has seen us through from the beginning to the end of the course. And to our lovely parents who has always been supportive.

ACKNOWLEDGMENT

All thanks due to Almighty Allah, the owner and the creator of Universe for His divine protection and guidance throughout my life in school and this research project work.

First and foremost, we give thanks and we appreciate the efforts of our distinguished project supervisor, QUESS.MR. ABDULRAHMAN, B.S who made sure we acquired all the necessary information and Knowledge during the course of this project work may Allah reward him abundantly.

Our gratitude goes to our beloved parents Mr and Mrs Animasaun, Ajasa and Aremu we can't thank you enough for your parental advice and financial support since the beginning of this program.

Lastly, our sincere gratitude also goes to the Head of Quantity Surveying Department, in person of QUESS. SIDIQ LATEEF, and all the lecturers of Quantity Surveying Department, Kwara State Polytechnic, Ilorin

ABSTRACT

The main reason for this study is for estimating and budgeting Unpriced Bill of Quantity for a proposed RESIDENTIAL BUILDING OF OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLADELE LOCATED AT ALAGBA LAYOUT IDO LGA OYO STATE The following has been discussed under the mention chapter in this project work with a view of finding solution to it.

Chapter one contain the background Information and the aim and objectives of the project work. Chapter two contains Site Report, the essence of preliminary items required. Chapter three deals with the Project Methodology that is taking off process and abstracting process. Chapter four contains the project Substructure and Super structure work, Abstracting and Bill of Quantities of the project. Chapter five is all atioul Summary, Recommendation and Conclusion of the whole project work and for further studies.

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CHAPTER ONE

INTRODUCTION

1.0 BACKGROUND INFORMATION

This project is based on a proposed storey building for office development for Pastor Samuel Oladele located at alagba layout Ido L.G.A oyo state.

In construction industry, cost is considered as one of the important element for constructing a project. Cost in construction includes the initial capital cost, and also the subsequent operation cost and maintenance cost. Generally, running a construction project will involve a lot of budget. Furthermore, the increasing rate of inflation by years, will affect the price of raw material, transportation, fuel, machinery, manpower and others will be a bothers for the clients such as developer to invest money for a project. Hence, to overcome this problem and alternative material or a new system will be the best option.

Construction Industry Development Board Malaysia (CIDBM) proposes cost saving method which are the Industrialized Building System (IBS) where the building component or the building system are pre-fabricated and then install on site. Moreover, it is proven not only reducing the cost but also reducing the construction time.

Furtherance to the information by Construction Industry Development Board (CIDB). There are five types of Industrialized Building System (IBS) that were introduced for the construction industry to practice which are pre-cast concrete framing: Panel and board system, steel formwork system, steel framing system, pre-fabricated timber framing system and finally the block work system. This report will focus on all sections of building works ie Block work, roof ete block made from cement laterized.

The usage of interlocking blocks as the construction materials has been proven to provide a lot of benefits. By implementing the cement laterized interlocking block for buildings will greatly reduce the wastage, volume of building materials, reducing unskilled workers, provide better quality control, promote a safer and more organized site; and last but not least will greatly reduce the construction cost and time.

1.1 DESCRIPTION OF WORK

The building project comprises of the construction of a proposed Teaching lospital building for Kwara State Polytechnic, Ilorin Nigeria, storey

building for office development for pastor Samuel Oladeie located at alagba layout Ido 1..G.A oyo state.

The building has a rectangular shape with the land area of about 30480mm in ength and 15200mm width.

The construction is found on the plain in situ concrete foundation with over site concrete floor which is a reinforced concrete slab (150mm thick). The walls are 225mm thick hollow sanderete block.

The roofing used is long span aluminum on timber roof structure, windows are of aluminum frame sliding with two (2) side and of different sizes, doors are: double eaf double swing natural an odixed aluminum special made electronic controlled door, pretty glazed aluminum frame door, slide core flush panel doors with season wood of different sizes.

Plant: These are tools, machines and equipment needed for the smooth execution of project.

Project: This is a process of work organized carefully and designed e.g building or civil engineering work

The walls are rendered and painted with emulsion internally and textured paint externally, Floor finishing is tiles finishing on 150mm concrete floor.

Service conducted are mechanical and electrical installation as well as fire lighting and alarm system.

1.2 AIM:

The aim of the project is to estimate and budget for a proposed storey building office development for pastor Samuel Oladele located at alagba layout Ido I..G.A oyo tate.

2.0 Title:

Proposed storey building office development for pastor Samuel Oladele located at lagba layout Ido L.G.A oyo state.

1.2.1 Objectives:

1. To determine the effect of site location and construction on the cost of building project.

2. To understand the process involved in preparation of Bill of Quantities (BOQ)

1.3 Scope and Limitations:

The scope of this project is to prepare a bill of Quantities (BOQ) for the proposed storey building office development for pastor Samuel Oladele located at lagba layout Ido L.G.A oyo state.

1.3.1 Limitation

1. Inability to conduct proper site investigation.
2. insufficient design information
3. Pricing (market survey) was not carried out to determine actual price of measured items.

1.4 Definition of Terms

Prime cost sum: This is a sum provided for work or service to be executed by nominated sub-contractor or for materials or goods to be obtained from a nominated supplier. The term includes specialist work carried out by person apart rom the main contractor (Ivor Seelay).

1. **Contingency Sum:** It is the sum allocated to unforeseen expenses it is expended only with the consent of the architect or supervisory engineer.
2. **Provisional cost sum:** This is the sum allocated to work that is subjected to change or that can't be accurately measured. The sum will later be adjusted according to the extent and true value of the work
3. **Estimating:** This can be defined as the technical process of predicting cost of Construction. It can also be further explained as a process by which cost of item is Carried out.
4. **Preliminaries item:** These are item meant for the smooth execute for smooth Execution of project. But which are not related to a particular trade section in BOQ
5. **Tender:** it is an offer to execute a given project at a certain amount of money and specify period of time

CHAPTER TWO

SITE REPORT

2.0 Title

A proposed storey building office development for pastor Samuel Oladele located at alagba layout Ido 1..G.A oyo state.

2.1 Site Description

The proposed project of storey building office development for pastor Samuel Oladele has a total length of 13,700mm and 68,750mm width which appear to be in a rectangular shape.

The site is located at Alagba layout Ido L..G.A oyo state. The site has small and big tress and bushes which needs to be cleared away from the site.

2.2 Location

The site is located within Alagba layout Ido 1..G.A oyo state.

2.2.1 Accessibility

There are untarred roads leading to the site from the main road in the school. So there is no problem delivery of materials to site and the labour are expected to resume work as early as possible.

2.2.2 Nature of the land

The proposed site of the building is a virgin land with a even/flat surface. This will minimize the construction cost of the foundation because of the balanced surface when compare to that of the study area which increases the constructional cost.

2.3 Availability and Proximity of Resources

Availability of construction resources simply means the extent of convenience at which the resources can be found in the market and the selling price.

While proximity means the closeness of the materials resources of the proposed site.

The construction resources include the following:

Plant

All necessary plant needed for the proposed projects are readily available in Ilorin. Such plant include: concrete mixer, Bulldozer, Electric generator, Compacting machine e.te all mentioned plant can be hired in area's not far to the site.

Materials

The whole material necessary for this project all are available at oyo state, but costly to some materials price in some area of the country.

However, all the material needed for smooth execution of this proposed project is remote to the site.

To an extent preliminaries items have a great effect on construction project. Such preliminaries items are explained below.

Scaffolding

There should be a provision for scaffolding because the project requires roofing works, there will be the need for rendering and painting at the higher level of the building.

Setting out

This is the transfer of information on the building drawing to the ground with high degree of accuracy. In setting out site clearance is necessary by cutting down of rees and edges & top soil excavation before making the provisions of setting out Instruments such as profile pegs, measuring tapes, builder square e.t.c before the commencement of site operation.

Temporary Road

This is done temporarily to provide easy access to the site during work.

Temporary fence

Temporary fence should be done to cover and protect the materials on site from vandalism.

First aid box

This is very important in any construction due to some injuries that may occur on site which might be minor or major injuries before being taken to the hospital.

Site supervision

This is the contractor's agent on the site who supervises the whole of the project. He also co-ordinates the works of sub-contractors and receives instructions from architect on behalf of the main contractor.

Setting out of the works

This contractor will set out the position of the building on the site before commencement of any actual work to the satisfaction of the Architect.

Temporary latrine

Welfare facility of this type must be provided on the site by the contractor to satisfaction of the architect.

CHAPTER THREE

PROJECT METHODOLOGY

3.0 Taking off process

Taking off process: This implies reading of dimension from drawings setting them down in a specific order on specific paper know as dimension paper and inserting an appropriate description. It also refers to the process of identifying elements of construction works that can be measured and priced.

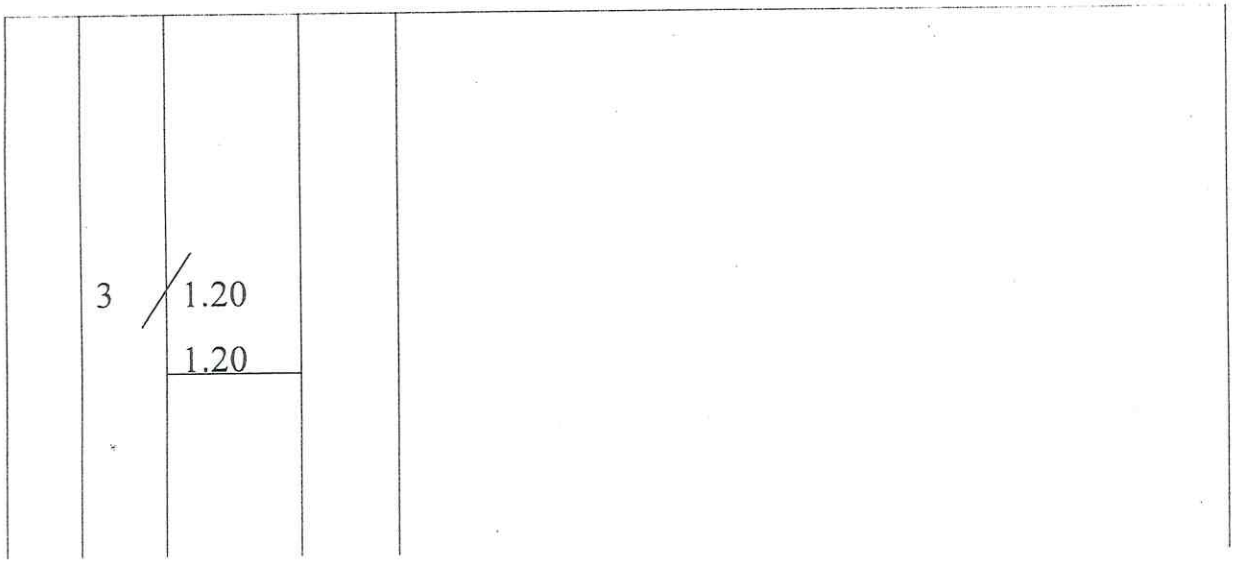
This is necessary to produce bill of quantities and requires that the design is complete and a specification has been prepared.

Analysis of drawing and specification allow the cost consultant (usually a Quantity Surveyor) to prepare a taking off list, which lists all of the individual elements that comprises the works. These elements can be measured in number, length, area, volume, item then collected and structured to produce an unprice bill of quantity(BOQ). This process is sometimes referred to as "working up"

The traditional dimension sheet is divided vertically in to two identical haves each comprising a set of four columns in effort, the ruling on the right half of the sheet may be considered to be a continuation of these on the left side of the sheets.

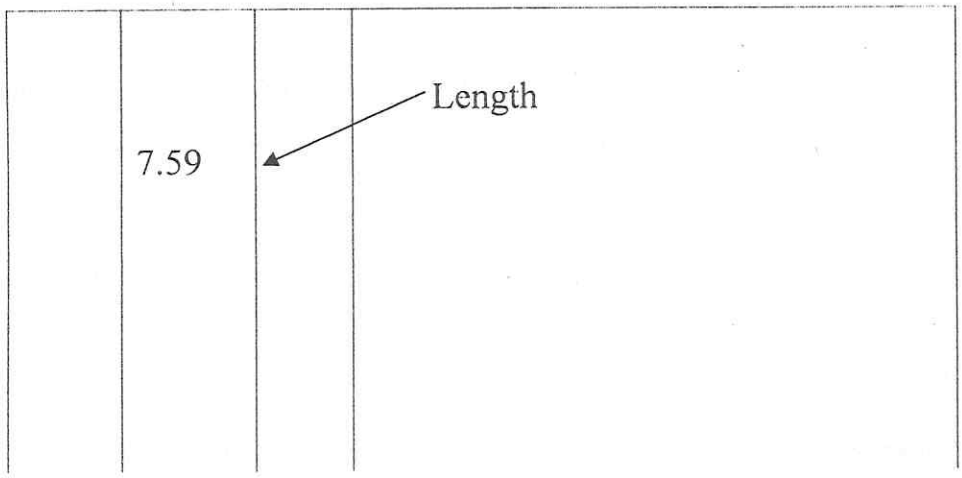
	A	B	C		A	B	C	D

Column A: are the timesing columns These column are used to enter multipliers when there is more than one of the particular items being measured.

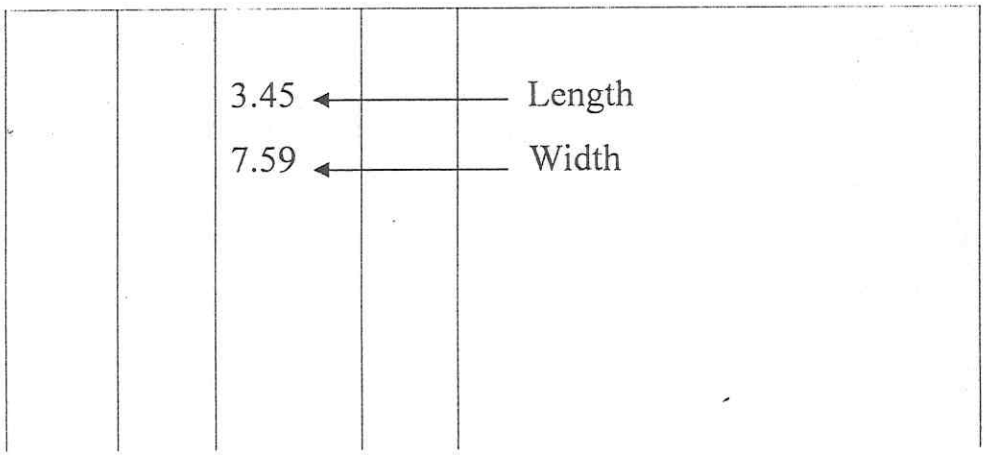


Timesing column

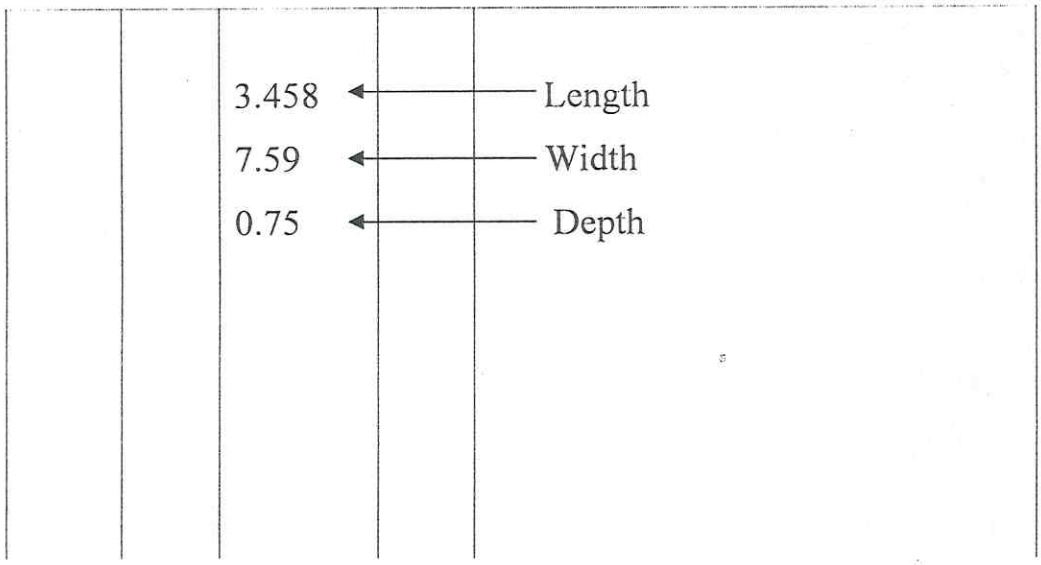
Column B: are the dimension columns, these columns are used to record the dimensions in meters. Each linear dimensions is underlined.



Linear



Area



Volume

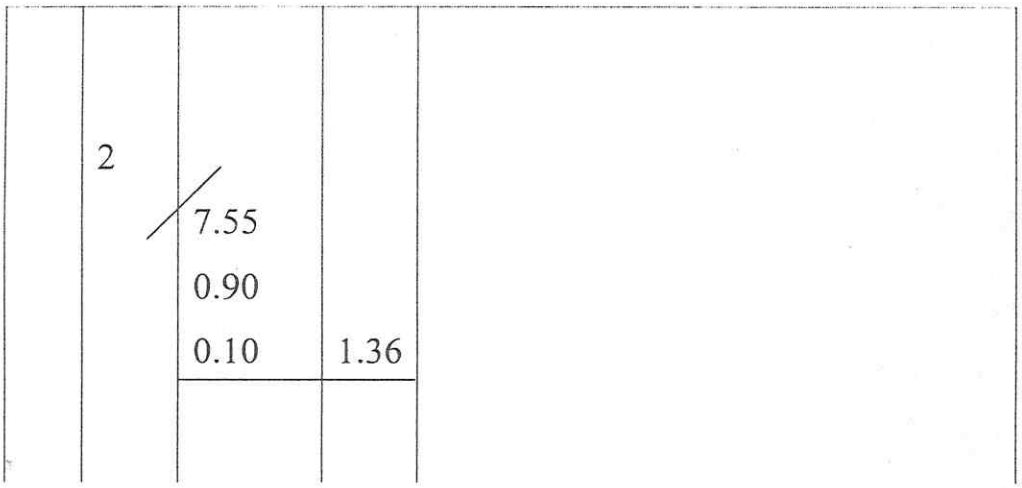
		2			Number

NOTE: The order of entering dimension is strictly

1. Length
2. Width
3. Depth/height

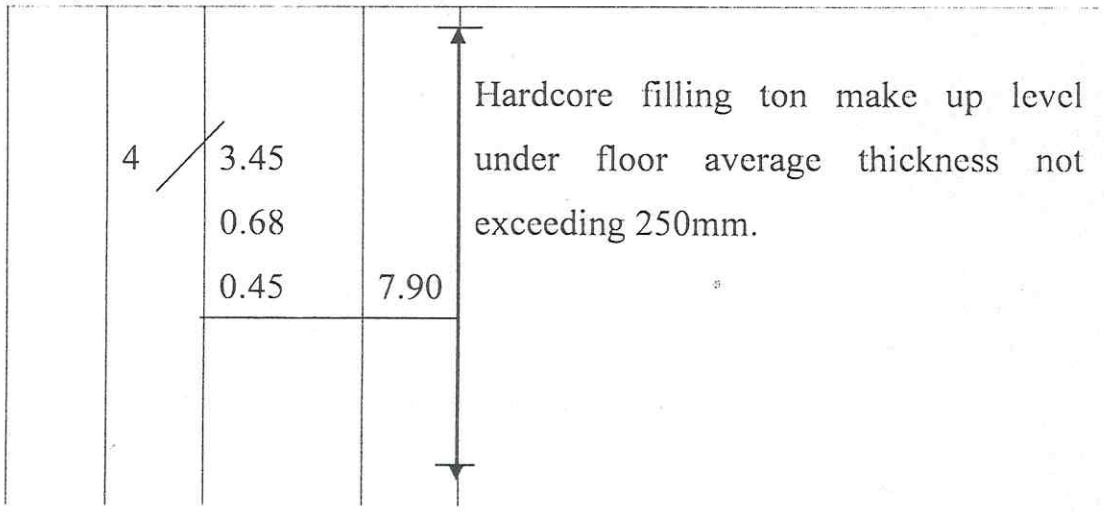
		items		Allow for bringing to site and removing from site all plant required for this work section.

Column c: are the squaring column: the resulting area and volumes inserted in the timesing and dimension columns are subsequently calculated and entered into the squaring column opposite their respective dimension.



Column D: The description column. There are many ways of inserting description on the dimension sheet but the most acceptable however, is description which commence in the same level with it's first dimension.

The example below show the dimension and description should be arranged in dimension sheet.



Waste calculation

This is an imaginary column occupying the right hand side of the description columns in which the taker-off inserts any preliminary calculation (waste) which may be necessary in order to arrive at the dimensions.

All preliminary calculation must be shown in waste, they need to be set down ecurately and carefully so that they can be checked.

They should be written either above or below the description to avoid confusion.

Waste: calculate is necessary for each dimension except in the following situations:

A. When a scaled or figured dimensions, can be transferred direct from the drawing to the dimension column.

B. When the dimension has been derived from a previous waste calculations.

C. When a dimension has been inserted from a previous dimension.

D. In all other instance the preliminary calculation, should be shown on waste.

Waste calculation should be done in millimeters (mm) or in three places of decimal. Final figures are then rounded off to the nearest 10mm before bring transferred to the dimension column.

3.0.1 METHOD TAKING OFF

Nill: is a method of cancelling wrong enteries during taking-off process.

Nill may be done in three (3) ways ie on waste calculation, on framed description and on figured dimensions.

Bracting: it is used to determine one item of measurement from another

Adding on: This is the method of connecting two or more description related to a common dimension.

3.0.2 SELECTION OF TAKING OFF

The taking off dimension is usually divided into section under the main sub division of

a) Sub-Structure

b) Super-Structure

c) Finishes

d) Service

e) External works

The section found in a normal building would generally comprises the following:

A) Sub Structure	1. Sub-Structure
B) Super-Structure	2. Frame
	3. Upper floors
	4. Roof
	5. Stairs
	6. External walls
	7. Windows and Doors
	8. Internal walls and partitions
	9. Internal doors
C) Finishes	10. Walls finishes
	11. Ceiling finishes
	12. Sanitary appliance
D) Services	13. Disposal installation
	14. Waste installation
	15. Heating installation
	16. Electrical installation
	17. Gas installation
	18. Lift installation
	19. Communication installation
	20. Builder's work in condition With service

E) External Work	21. Site work
	22. Drainage

3.1 ABSTRACTING PROCESS

After the squaring process, the next process is abstracting. This is in a special mule sheet. The sheet are ruled with series of vertical line that are spaced about 250mm apart and usually on A4 in width, each abstract sheet is headed with the job reference, Sheet number and work section and possibly the sub-structure of the work to which the abstract dimension refer, the sheet may e divided into work section or element.

Abstracting id process where various items are stored out into their respective trades as they are entered on the abstract paper.

Description are usually spaced over two columns. The dimension are entered in the left hand column while any deductions are entered on the right hand column.

The order of abstracting is to commence with cubic items, followed by superficial (square), linear and finally enumerated items. Also labour items should proceed labour and materials. Smaller items proceeding larger ones and cheaper items proceeding more expensive items.

3.2 Bill of Quantities (BOQ)

Bill of quantities is a documents which set out the quantities and description of the items of labour, materials and plant require to erect and complete a building or other works in a systematic manner.

The preliminary sections of the bill sets out the practical and contractor conditions of the project, particular of the type of contract to be used and also the details of general matters, which may affect the price of the work together with project overheads. Project overhead are items that cannot be attributed to any particular measured work section.

The measured items are grouped in appropriate sections and each section tarts with a number of preamble clauses.

CONTENTS OF THE BILL OF QUANTITIES (BOQ)

The principal use of the bill of quantities is to obtain competitive tenders and For this purpose B.O.Q should be prepared to recognized method of measurement to tandardize the bills. Bill of quantities prepared in accordance

with a standard method of measurement, fully described and accurate respect the work to be executed and this provides a uniform basis for competitive tendering.

During the construction of the project, the client and the contractor use the bill as the basis for financial management.

Bill of Quantity may consist some all of the following:

Bill Nr.1. Preliminaries

Bill Nr.2. Preamble

Bill Nr.3. Measured works

A. CARCASS

1. Foundation (Substructure)

11. Frame (column & beam)

III. External & internal walls

IV. Partitions

V. Floors

VI. Roofs

B. FINISHING

1. External & internal finishing (walls, floor & ceiling)

II. Windows

III. Doors including opening without joinery

IV. Fixtures & Sundries

V. Stair & lifts

VI. Plumbing & Engineering service

C. EXTERNAL WORKS

1. Drainage

11. Roads, paths, site layout, out buildings e.t.c

D Sport items: These are items that are alteration and repair items of a

Building:

Bill Nr.4. Provisional quantities

Bill Nr.5. Prime cost & provisional sum

Bill Nr.6. General summary

PURPOSE OF A BILL OF QUANTITIES

a. It serves as a schedule on which all variation in the work may be valued.

b. To provide detailed list of every service to be performed.

c. To supply each tenders with information which will enable them to tender on a uniform basis.

d. To describe in addition to any description in the specification of the quantity of the work and the method of carrying it out.

c. It can be use for further cost investigation and cost planning information.

f. Prevent disputes as to what is and what is not included in the contract prices and the value of any work or labour which has been omitted.

PRODUCTION OF BILL OF QUANTITIES

These are several techniques of preparing bill of quantities (BOQ)

TRADITIONAL BILL METHOD: It is set down in the sequence following

he out of the building and engineering standard method of measurement |BESMM). This system provides "the taking off" with a logical system of measurement designed prevent accurate and efficient taking off.

The work is measured in series of groups, each representing a particular section of building without regard to the order in which items will finally appearing he bill. As the sequence of measurement is not related to the order of the bill the working up" process must involved the preparation of an abstract to collect and arrange the items in the order necessary for writing the defect bill. This system is mostly used in the examination.

It comprises of the following:

i. Taking off usually group system

ii. Working-up: Squaring, abstracting, totaling, rounding off & billing.

OPERATIONAL BILL METHOD: It is tendering document for estimating costs prepared by architects that describes a construction project in terms of the operations (which include labour and plant) needed to build it. This form of document contracts with that bills of quantities in which such tendering and estimation is limited to the materials in the completed work operation bills have the advantages of enhancing communication between design and production, enabling realistic tender pricing and making the preparation of critical path analysis easy for the contractor.

ACTIVITIES BILL METHOD: The activity bill was a development of operational form but without the separation of labour and materials. It was sub-divided into section based on activities or operation derived from a network analysis. The work was measured in accordance with the standard method of measurement although on site and off site activities were usually separated and specialist equipment and component of and the work of nominated specialist could be grouped in spate bills (Seelay and winifield 2005).

ELEMENT BILL METHOD: Here the work is billed in trade order not in sequence of the building and engineering standard method of measurement [BESMM] but under heading that from a breakdown of the building into the main element of the structural wall, floor and roof. Although these provide a more useful control document during the construction operation, it makes the tendering procedure more complicated (T.C onouah)

ANNOTATED BILL: It is possible for the bill of quantities to give the contract fill details of the quantities, types and quantity of materials and labour and for an accurate and complete set drawing to show him precisely where and how the work is to be executed. (Seelay and winifield 2005)

CUT AND SHUFFLE BILL METHOD: This is a faster method than the traditional method. The civil engineer or surveyor take off quantities into specially designed sheet in duplicate where the original sheet is perforated into strips which can be separated from the book and collected together to form group of items.

DIVISION OF BILL PREPARATION: The traditional method of preparation of bill of quantities can be broken down into two main processes.

Taking off: Seelay 1988 defined "taking off" as the process in which dimension are scaled read from drawings and entered in a recognized form in a special ruled paper called dimension paper.

Working up: This process can be divided into two stages as follow:

Squaring: This comprises squaring the dimension and transferring the resultant lengths, area and volumes to the abstract.

Abstracting: The squared dimension are arranged in convenient order for billing and reduced to the recognized units of measure.

Other process include:

3.3 Requirement for Accuracy:

Whatever the method adopted for bill preparation, the requirement for accuracy is the same for example

Work shall be measured not as fixed in position overlaps. (General Rule 4.1)

1) Dimension used in calculating quantities shall be taken to the nearest 10mm (i.c 5mm and less than 5mm shall be disregarded). (General Rule 4.2).

All dimension shall be record to two decimal places and waste calculation are to three decimal places.

2) Quantities measured in tones shall be given to two decimal places. (General Rule 4.3).

3) Other quantities shall be given in the nearest whole except that any quantity less than ten shall be given as to the nearest first decimal. (General Rule 4.4).

4) Void or openings, which are wholly within the boundaries of measured area and voids or openings wholly at the boundaries of measured piers, column and similar member, shall always be the subject of deduction, irrespective of size (General Rule 4.5)

5) Items can be measured within a range of stated limits.

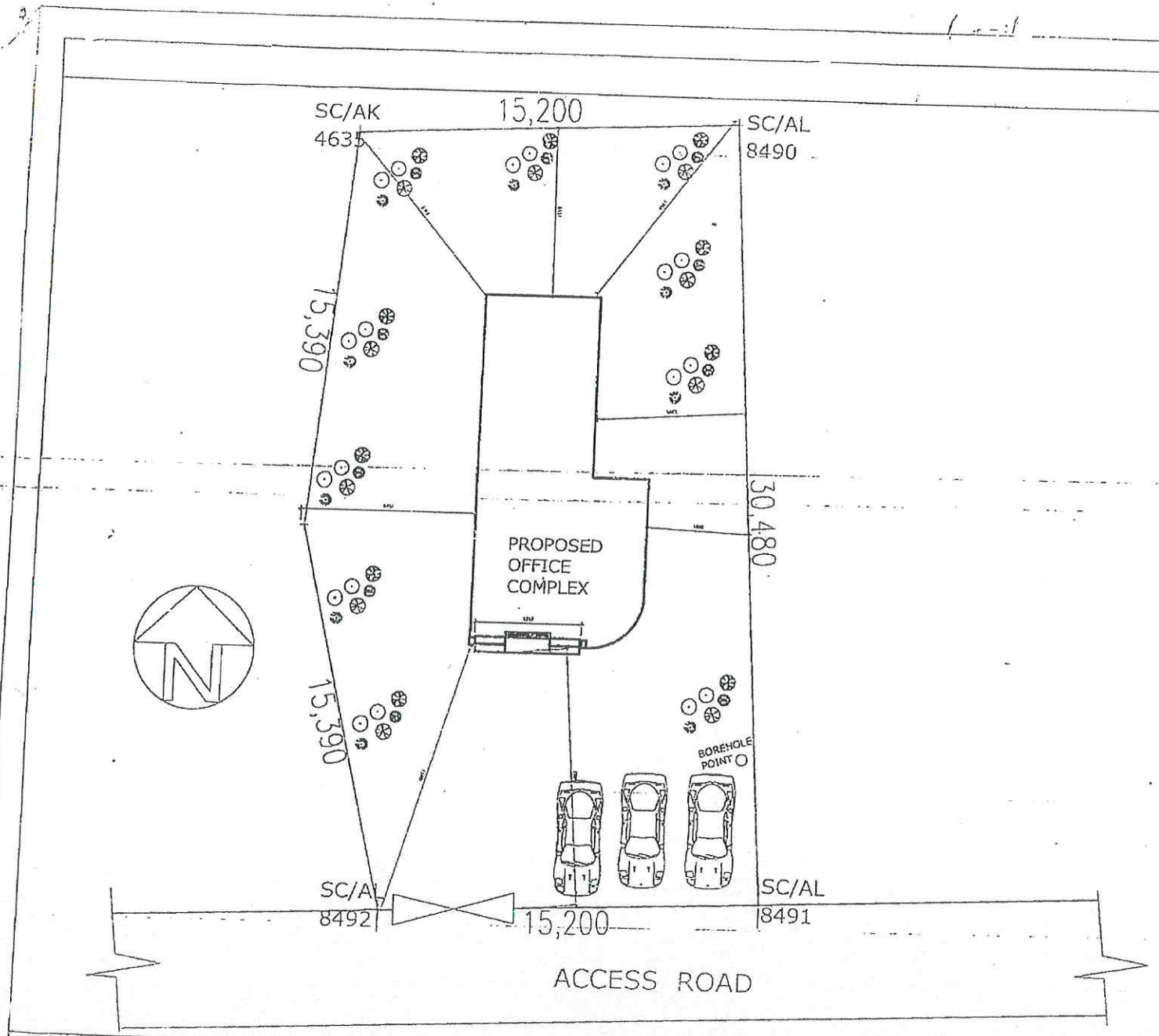
6) Average or an interpolation of level may be required for the measurement of execution. Due to problem with reprographics and the inherent inaccuracy of the process, scaling drawing should be avoided whenever possible. However, where dimension are stated on drawing there is no excuse for measurement bring anything other than correct.

PROJECT TITLE

PROPOSED OFFICE DEVELOPMENT FOR PST SAMUEL OLADELE LOCATED AT ALAGBA LAYOUT IDO L.G.A OYO STATE.

OCTOBER 2016

Archi-Strides concept
ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior decoration
75b Ujah Shopping Mall, 2nd Floor
by Doma junction Woji Rd Rumuroli
Port-Harcourt, Rivers state
G.S.M NO 08037061772,08126670120
adiqson2002@yahoo.com,adiqson2002@gmail.com



SITE PLAN

NOTES

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN	ADIGUN S.M.
DRAWING DESCRIPTION	SITE PLAN
JOB NO	ASC/PSOA/10/2016
DRAWING NO	A 01
SCALE	1 : 150
DATE	OCT. 2016
DRAWN	F. MUSBAU
CHECKED	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
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Port-Harcourt, Rivers state
G.S.M. NO 03037051772, 08186670120
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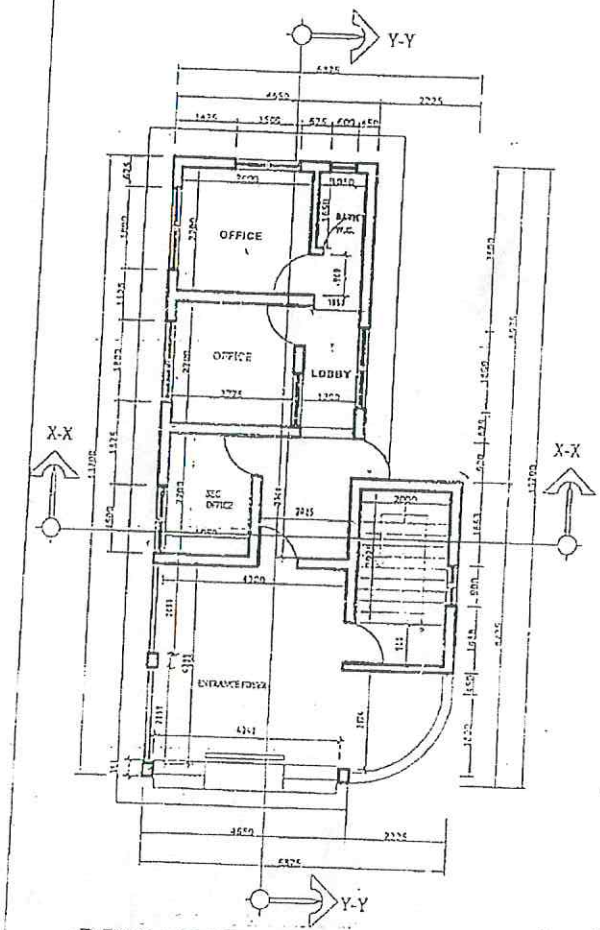
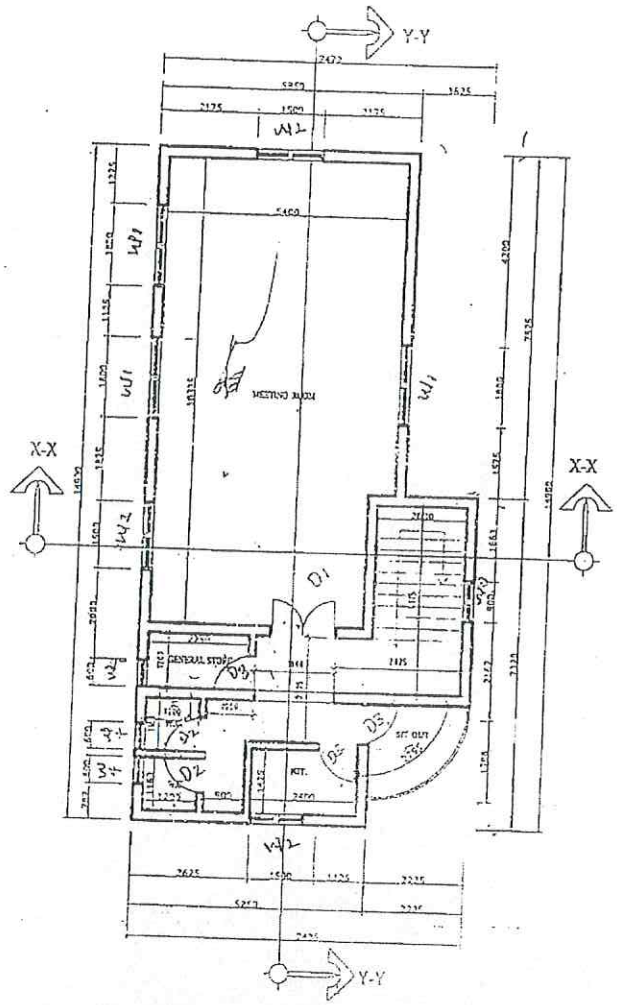


GROUND FLOOR PLAN



FIRST FLOOR PLAN

NOTES

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRAWING NO	A 00
SCALE	1 : 75
DATE	OCT. 2016
DRAWN	OMER FARUQ
CHECKED	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
75b Ujah Shopping Mall, 2nd Floor
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Port-Harcourt, Rivers state
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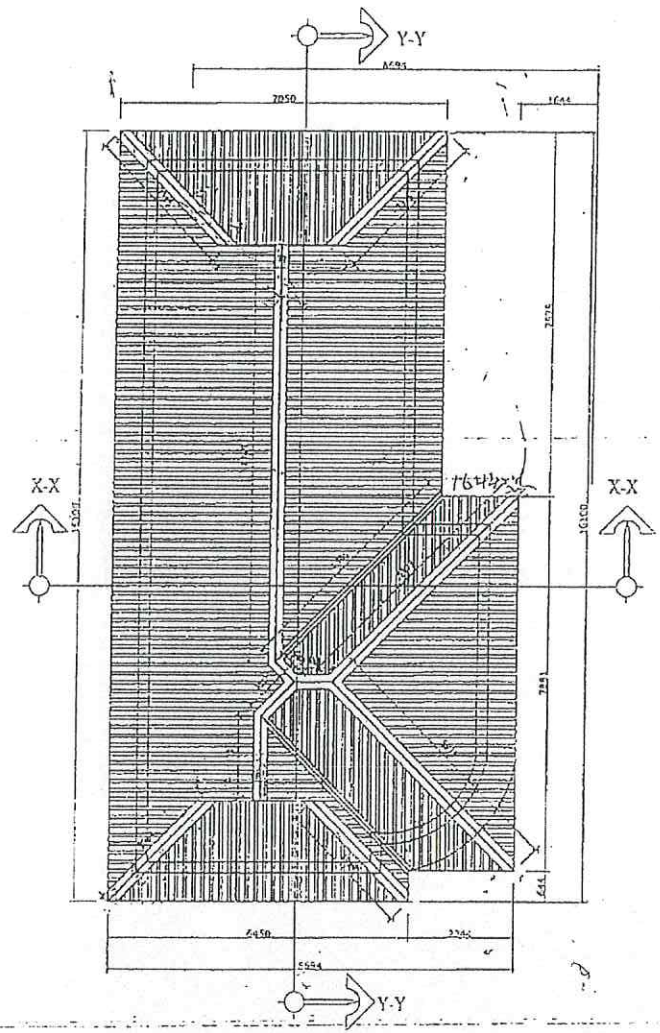
adigson2002@yahoo.com, adigson2002@gmail.com



ROOF PLAN

NOTES

REV. SUFFIX	DATE OF REVISION	DETAILS	ADVISED/DATE

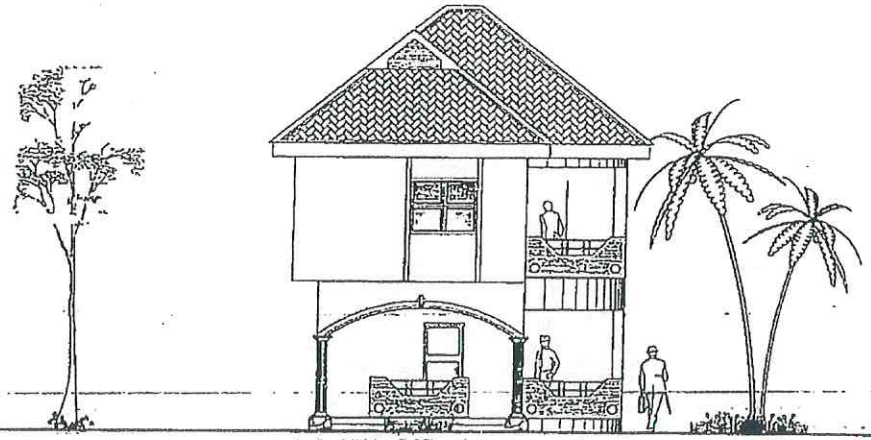
JOB TITLE

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

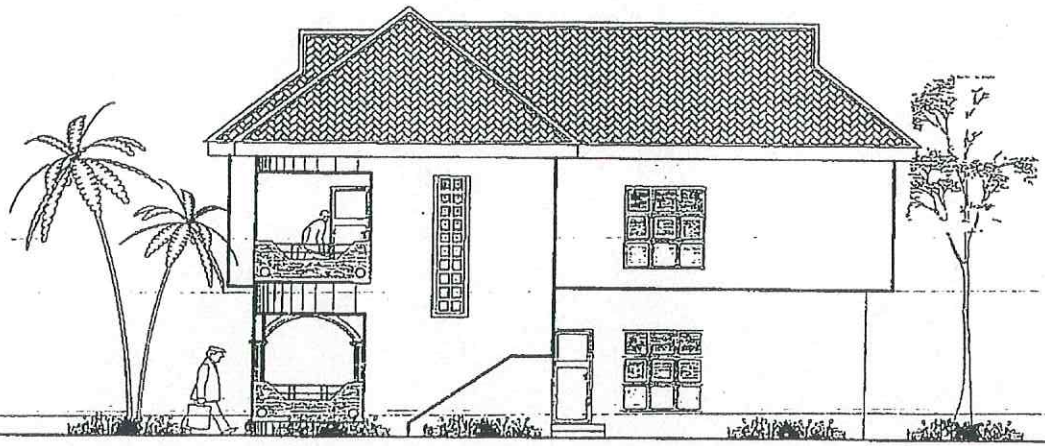
DESIGN	DRAWING DRAFTED
ADIGUN S.M.	
JOB NO	DRAWING NO
ASC/SOA/10/2016	A 08
CHK'D	

SCALE	DATE	OWNER	CHECKED
1 : 75	OCT. 2016	UMAR FARUQ	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
*Decoration
Shopping Mall, 2nd Floor
by Doma junctionWoji Rd Rumerolu
Port-Harcourt,Rivers state
G.S.M. NO 08037061772,08186570120
adigsen2002@yahoo.com,acasso2002@gmail.com



APPROACH ELEVATION



RIGHT SIDE ELEVATION

NOTES

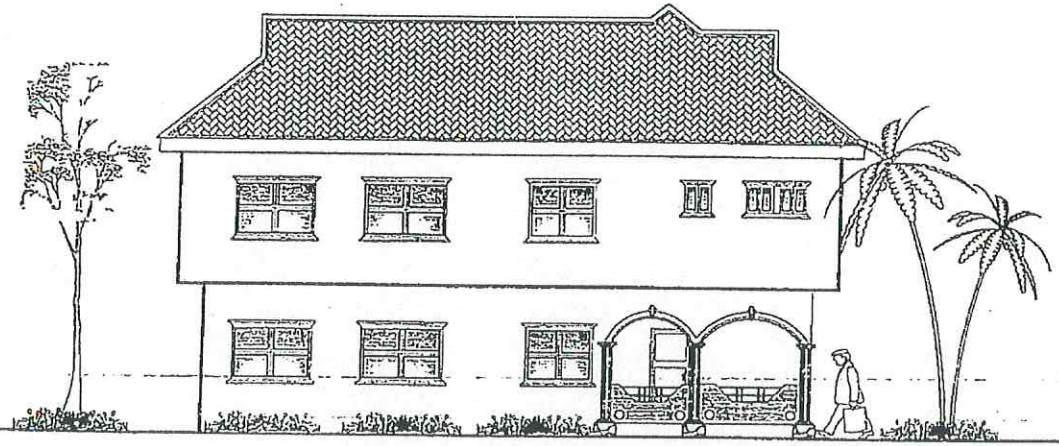
KEY PLAN	DATE OF REVISION	DETAILS	REVISION DETAIL

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A.
OYO STATE.

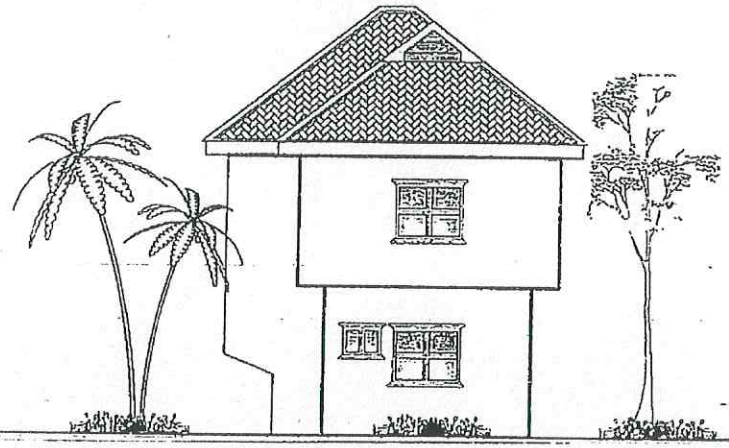
DESIGN	DRAWING CONTENT
ADIGUN S.M.	
JOB NO	DRAWING NO
ASC/SOA/10/2016	A 08
CLIENT	

SCALE	DATE	DRAWN	CHECKED
1 : 75	OCT.2016.	UMAR FARUQ	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Secretariat Shopping Mall, 2nd Floor
by Doma JunctionWoji Rd Rumuolu
Port-Harcourt,Rivers state
G.S.M. NO 08037061772,08186570120
adigson2002@ yahoo.com,adigson2002@gmail.com



LEFT SIDE ELEVATION



REAR ELEVATION

NOTES

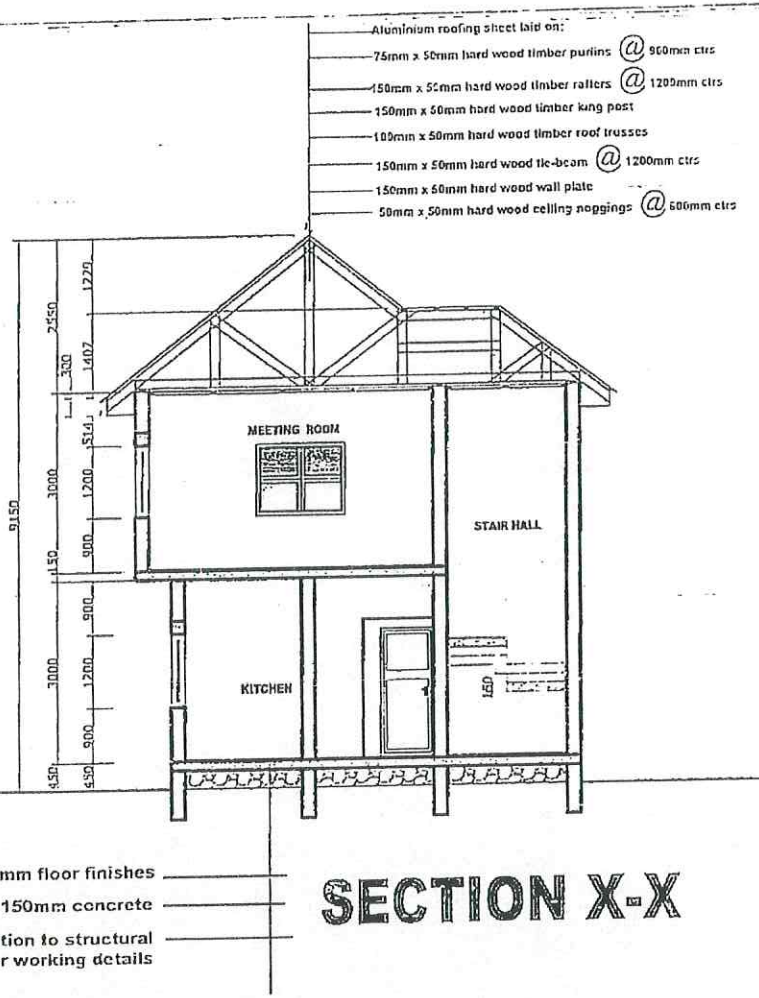
REV SUFFIX	DATE OF REASON	REMARKS	REVISION DETAIL

JOB TITLE

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN	DRAWING CONTENT
ADIGUN S.M.	
JOB NO: ASC/SOA/10/2016	DRAWING NO: A 08
STATUS	
SCALE: 1 : 75	DATE: OCT.2016
DRAWN: OMAR FARUQ	CHECKED: A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Decoration
by Doma junctionWaja Rd Rumuola
Port-Harcourt,Rivers state
G.S.M. NO 08037061772,08186670120
adigsan2002@yahoo.com,adigsan2002@gmail.com



SECTION X-X

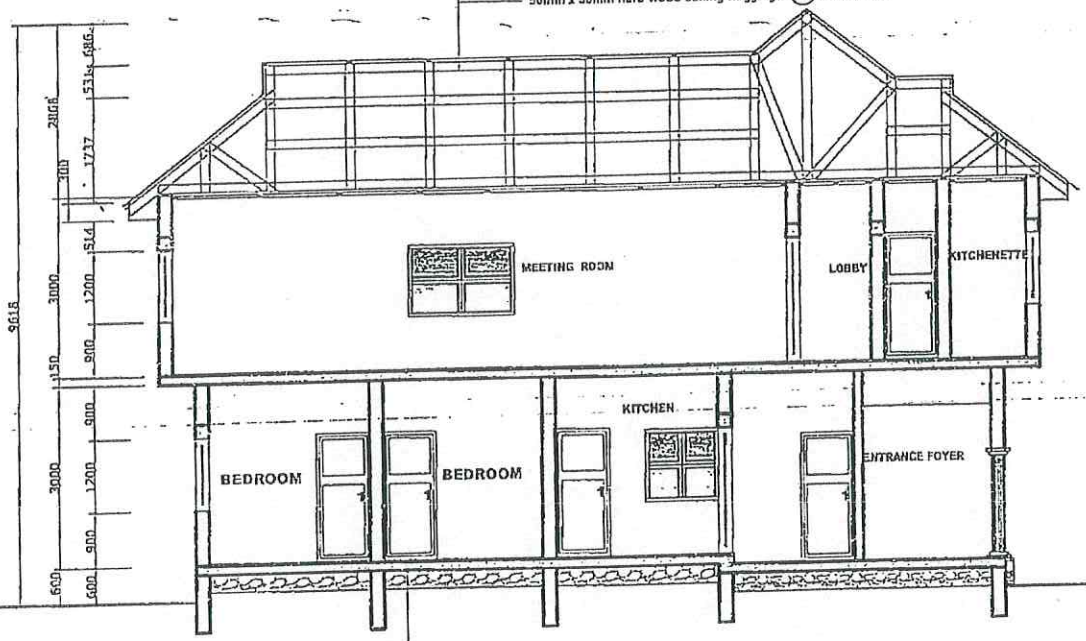
NOTES

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN: ADIGUN S.M.
JOB NO: ASC/SOA/10/2016
DRAWING NO: A 08
SCALE: 1 : 75
DATE: OCT.2016
DRAWN: UMAR FARUQ
CHECKED: A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Decoration
Shopping Mall, 2nd Floor
by Doma JunctionWoji Rd Rumuola
Port-Harcourt, Rivers state
G.S.M. NO 08037061772,08186570120
aclason2002@ yahoo.com,aclason2002@gmail.co:

Aluminium roofing sheet laid on;
75mm x 50mm hard wood timber purlins @ 900mm ctrs
150mm x 50mm hard wood timber rafters @ 1200mm ctrs
150mm x 50mm hard wood timber king post
150mm x 50mm hard wood timber roof trusses
150mm x 50mm hard wood tie-beam @ 1200mm ctrs
150mm x 50mm hard wood wall plate
50mm x 50mm hard wood ceiling noggings @ 600mm ctrs



25mm floor finishes
150mm concrete
foundation to structural engineer working details

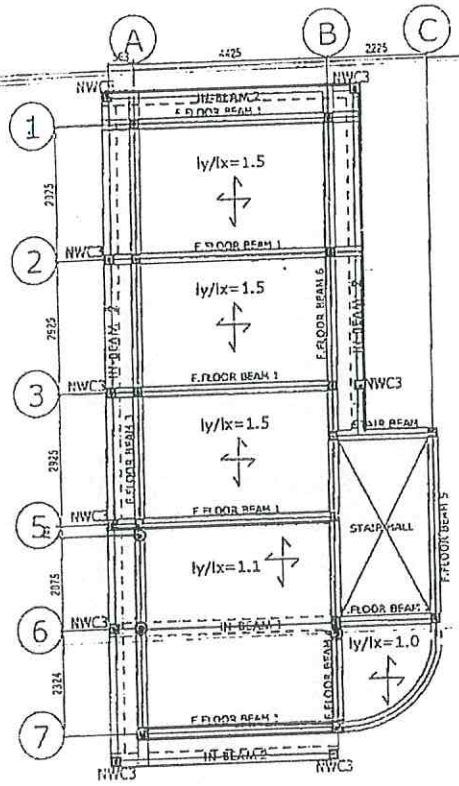
SECTION Y-Y

NOTES

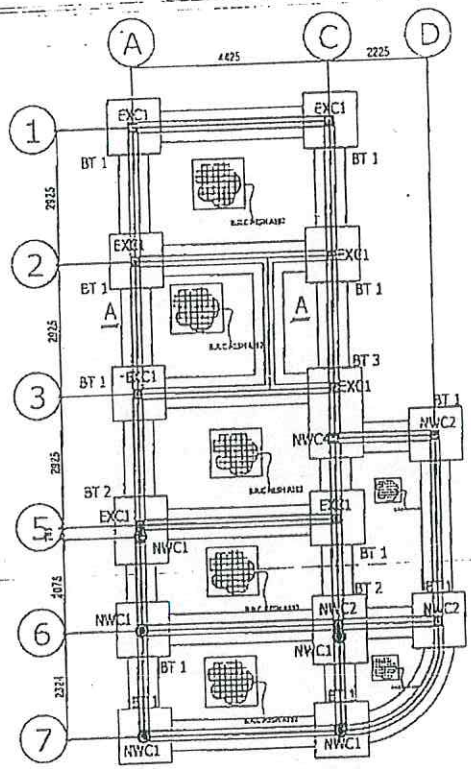
PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN: ADIGUN S.M.
JOB NO: ASC/SOA/10/2016
DRAWING NO: A 08
SCALE: 1 : 25
DATE: OCT.2016.
DRAWN: UMAR FARUQ
CHECKED: A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Suite 6, Shopping Mall, 2nd Floor
by Doma JunctionWoji Rd Rumuroiu
Port-Harcourt, Rivers state
G.S.M. NO 08037061772,08166670120
adinson2002@yahoo.com,adinson2002@gmail.com



F.FLOOR BEAM LAYOUT



FOUNDATION LAYOUT

NWC1-NEW COLUMN 1
NWC2-NEW COLUMN 2
EXC1- EXISTING COLUMN 1

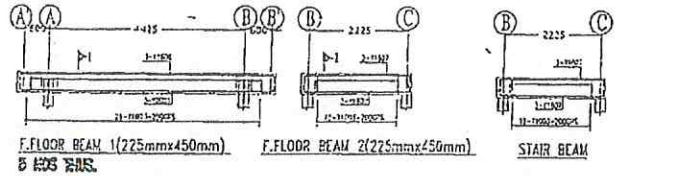
NOTES

REV SYMBOL	DATE OF REVISION	NOTES	REVISED DETAIL

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DRAWN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRAWING NO	A 06
SCALE	1 : 75
DATE	OCT.2016.
CHECKED	A.S.C.

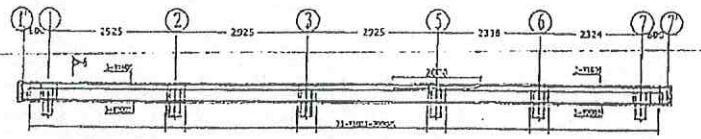
ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Decoration
by Doma JunctionWoji Rd Rumuolu
Port-Harcourt, Rivers state
G.S.M. NO 08037061772,08186670120
adigson2002@ yahoo.com, adigson2002@gmail.com



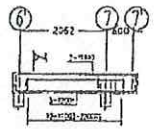
F.FLOOR BEAM 1(225mmx450mm)

F.FLOOR BEAM 2(225mmx450mm)

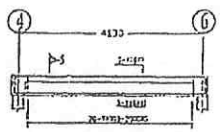
STAIR BEAM



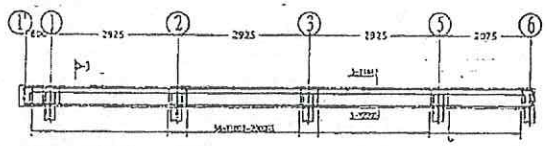
F.FLR.BEAM 3(225mmx450mm)



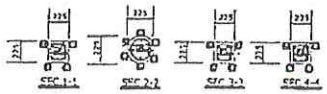
F.FLOOR BEAM 4(225mmx450mm)

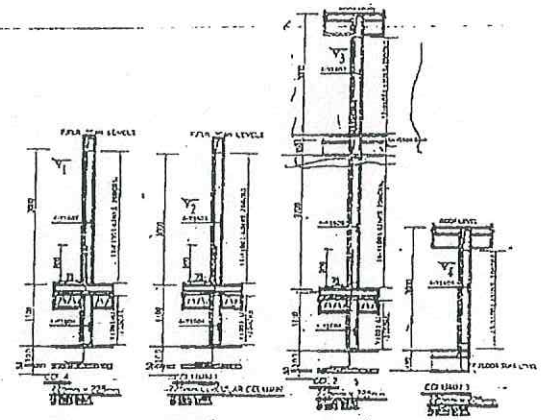


F.FLOOR BEAM 5(225mmx450mm)



F.FLR.BEAM 6(225mmx450mm)



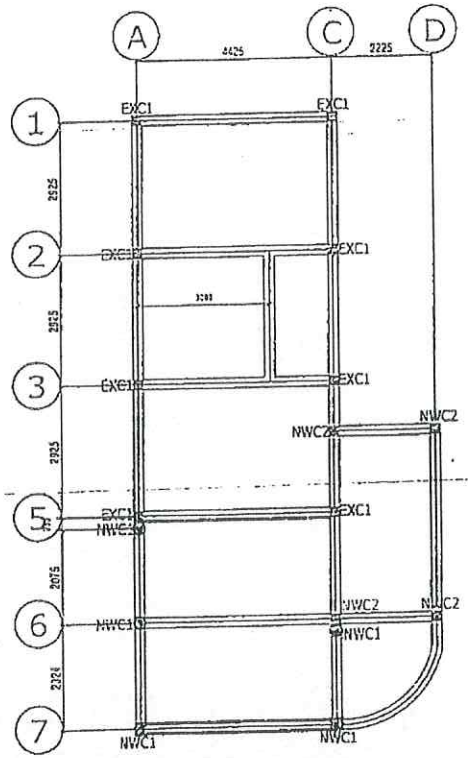


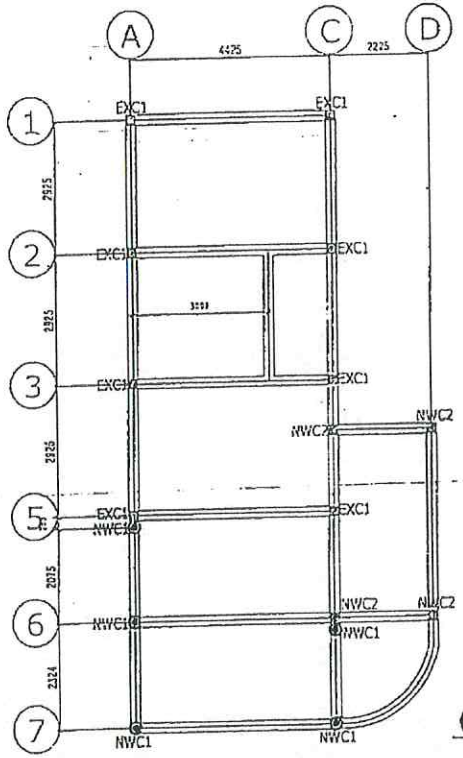
NOTES

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRAWING NO	A 08
SCALE	1 : 75
DATE	OCT.2016
DRAWN	UMAR FARUQ
CHECKED	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Shopping Mall, 2nd Floor
by Doma junctionWoji Rd Rumuolu
Port-Harcourt,Rivers state
G.S.M. NO 08037061772,08186670120
adigson2002@yahoo.com,adigson2002@gmail.com





NWC1-NEW COLUMN 1
NWC2-NEW COLUMN 2
EXC1- EXISTING COLUMN 1

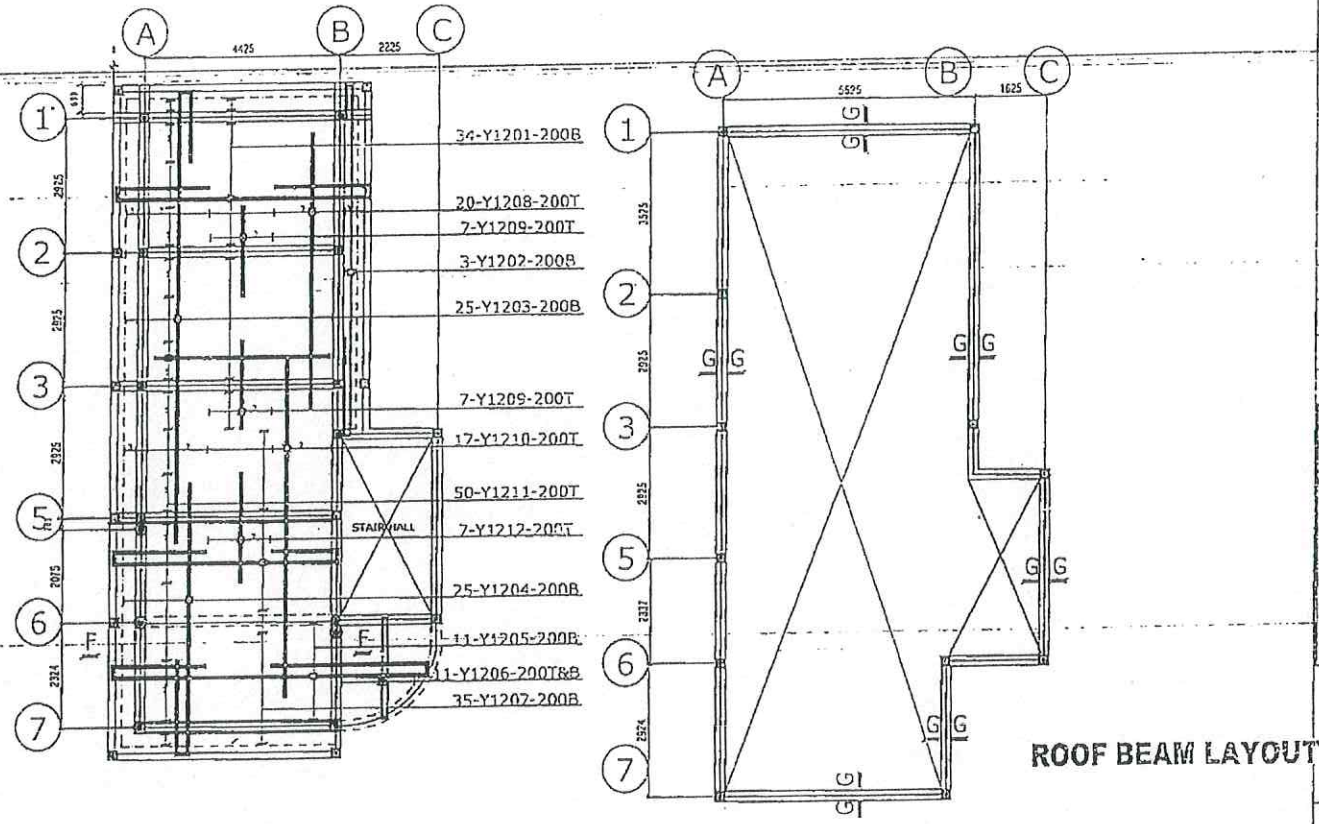
COLUMNS LAYOUT

NOTES

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRG NO	A 08
SCALE	1 : 75
DATE	OCT.2016.
DRAWN	JIMAR FARUQ
CHECKED	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Section Shopping Mall, 2nd Floor
by Doma JunctionWoji Rd Rumuolu
Port-Harcourt, Rivers state
G.S.M. NO 08037061772,08186670120
adicson2002@yahoo.com,adicson2002@gmail.com



F.FLOOR SLAB DETAILS

ROOF BEAM LAYOUT

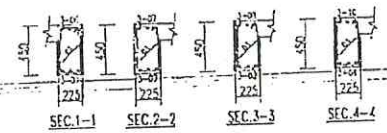
NOTES

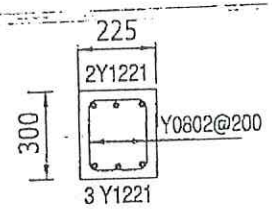
NO.	DATE OF REVISION	INITIALS	REVISIONS MADE

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

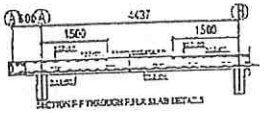
DESIGN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRAWING NO	A 08
SCALE	1 : 75
DATE	OCT. 2016.
DRAWN	UMAR FARUQ
CHECKED	A.S.C.

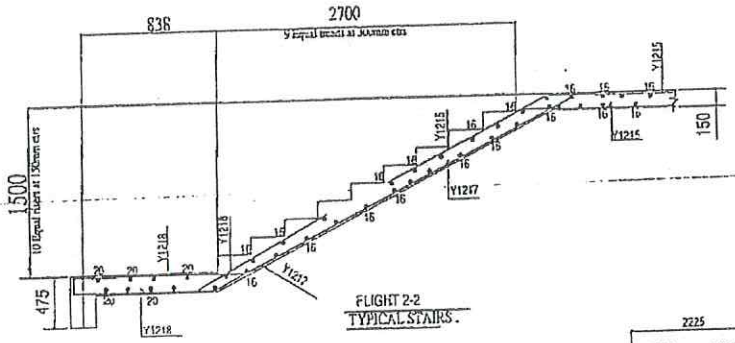
ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
2nd Floor Shopping Mall, 2nd Floor
by Dama JunctionWoji Rd Rumuroki
Port-Harcourt,Rivers state
G.S.M. NO 08037061772,08186670120
adieson2002@ yahoo.com,adieson2002@gmail.com



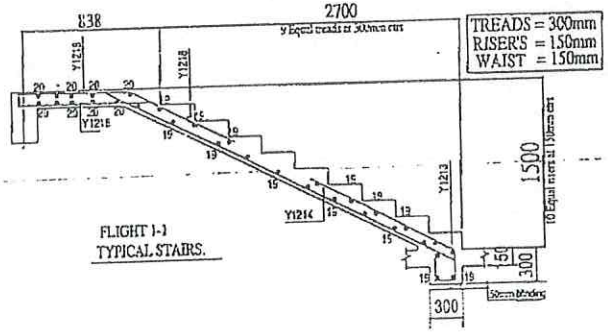


Typical Roof beam Section G-G

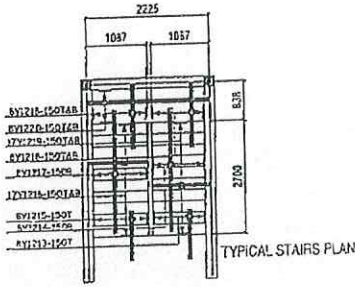




FLIGHT 2-2
TYPICAL STAIRS.



FLIGHT 1-1
TYPICAL STAIRS.



TYPICAL STAIRS PLAN

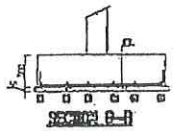
NOTES

REV.	DATE OF REVISION	DETAILS	REVISION BY

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

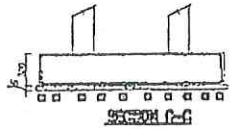
DESIGN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRAWING NO	A 08
SCALE	1 : 75
DATE	OCT. 2016
DRAWN	UTHAR FARUQ
CHECKED	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Shopping Mall, 2nd Floor
by Doma junctionWoji Rd Rumuolu
Port-Harcourt,Rivers state
G.S.M. NO 08037051772,08186670120
adigson2002@yahoo.com,adigson2002@gmail.com

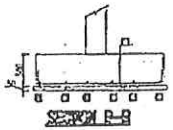


SECTION B–B

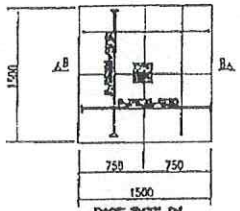
SECTION C–C



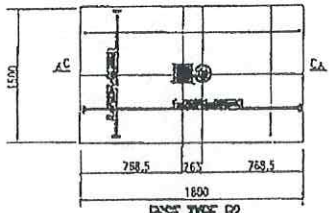
SECTION C–C



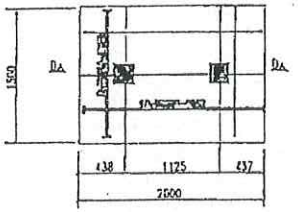
SECTION B–B



BASE TYPE B1
8 NOS THUS.



BASE TYPE B2
2 NOS THUS.



BASE TYPE B5
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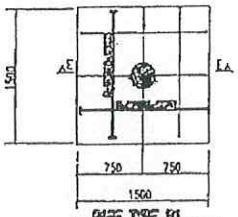
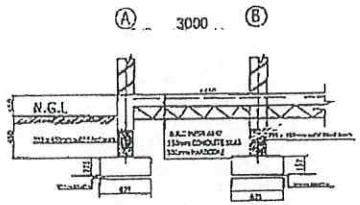


BASE TYPE B1
3 NOS THUS.



Sec A-A THROUGH FOUNDATION LAYOUT

NOTE: Apply BRC A192 to all panels

NOTES

PROPOSED OFFICE DEVELOPMENT
FOR
PST SAMUEL OLADELE
LOCATED AT
ALAGBA LAYOUT IDO L.G.A
OYO STATE.

DESIGN	ADIGUN S.M.
JOB NO	ASC/SOA/10/2016
DRAWING NO	A 08
SCALE	1 : 75
DATE	OCT.2016
DRAWN	UMAR FARUQ
CHECKED	A.S.C.

ARCHI-STRIDES CONCEPT
*Designs *Construction *Interior
Block A Shopping Mall, 2nd Floor
by Oma JunctionWeji Rd Rumuola
Port-Harcourt,Rivers state
G.S.M. NO 08037061772,08186670120
adisen2002@ yahoo.com,adisen2002@omail.com

Doors & Window schedul for ground floor

Doors

D1 = 2400 × 900
6 no

D2 = 2100 × 750

windows

W1 = 1200 × 1500
2 nr

W2 = 1200 × 1800
3 nr

W3 = 1200 × 900
1 nr

W4 = 600 × 600

W5 = 1200 × 1200

Doors first floor

D1 = 2100 × 1200
1 no.

D2 = 2100 × 750
2 nos.

D3 = 2100 × 900
3 nos.

windows

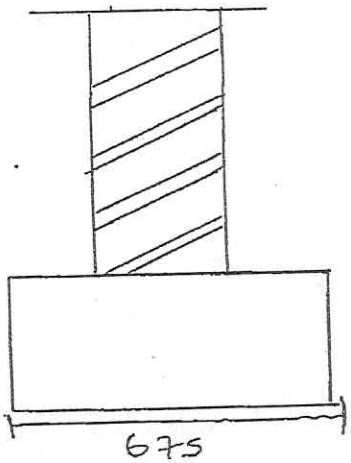
W1 = 1800 × 1200
3 nos.

W2 = 1500 × 1200
3 nos.

W3 = 600 × 600
3 nos.

T	D	S	DESCRIPTION
			TAKING OFF FOR A PROPOSED OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLADELE, LOCATED AT ALAGBA LAYOUT IDO L.G.A OYO STATE.
			THIS WORK IS MEASURED IN ACCORDANCE WITH BESMM4.
			THE PLAN IS DRAWN IN 1:74
			TAKING OFF LIST
			SUB STRUCTURE
			ALL PROVISIONAL
			A. DESCRIPTION OF WORK
			B. EARTHWORK & EXCAVATION
			— SITE PREPARATION M2
			— REMOVAL OF TREES NR
			— SITE CLEARANCE M2
			— TOP SOIL EXCAVATION M2
			— TOP SOIL DISPOSAL M3
			— TRENCH EXCAVATION M3
			— PIT. EXCAVATION M3
			— BACK FILLING M3
			— LEVELLING & COMPACTING M2
			— SURFACE TREATMENT M2
			— EARTHWORK SUPPORT M2
			— LITERITE FILLING M3
			— HARD CORE FILLING M3
			— D.P.M M2
			C. CONCRETE WORK
			— CONCRETE IN BLINDING M3
			— CONC. IN FOUNDATION M3
			— CONC. IN COL. BASE M3
			— CONC. IN COLUMN. M3
			— CONCRETE OVER A/S M3
			D. REINFORCEMENT
			— REINFT IN PIT BASE (kg/ton)
			— REINFT IN COLUMN. (kg/ton)
			— STIRRUP & LINKS (kg/ton)
			— FABRIC MESH (kg/ton)
			E. FORM WORK
			— FORMWORK IN PIT BASE (M)
			— FORMWORK IN COLUMN (M)
			— FORMWORK TO EDGES OF SLAB (M)
			F. BLOCK WORK
			— BLOCK IN FOUNDATION (M^2)
			G. FINISHES
			— RENDERING (M^2)
			— PAINTING. (M^2)

T	D	S	DESCRIPTION
			The works measured in this section comprises of sub-structural works up to Superstructural works including the d.p.c level The soil is firm and ground water level is well below the foundation trench The land is 15,200mm by 30,480 mm rectangular in shape
			EXCAVATION & EARTHWORK — SITE PREPARATION & REMOVAL OF TREES
			Cutting down or removal of trees scrup up to their root including filling voids
			Girth 500mm — 1500mm
8/	1	8	1·5·2·2 & 1·5·3·2
			Ditto 1500mm — 3000 mm
2/	1	2	1·5·2·2 & 1·5·3·2
			SITE CLEARANCE M²



T	D	S	DESCRIPTION
			L=13700 W=6875
			~~Add~~ Sprd. 2/225
			450 — 14150 ; 450 — 7325
			Clear site off existing vegetation Scrup up to their root and fill voids 1·5·4·1
14·15			
7·33		103·72	
			TOP SOIL EXCAVATION M²
			Excavate vegetation topsoil 150 mm depth, comm. below existing ground level 1·5·5·2·1
14·15			
7·33		103·72	
			TOP SOIL DISPOSAL M³
			Remove vegetation topsoil and dispose off site to a distance of 1 M; in a Spoil heap 1·5·5·1·1
14·15			
7·33			
0·15		15·56	

T	D	S	DESCRIPTION

TRENCH EXCAVATION

L = 13700

W = 6875

2/20,575

41,150

less

4 corners

4/½/2/225 900

40,250

Internal girth

Horizontal

3000
2775
1950
1050
1200
2025
2000

14,000

Vertical

4/2700 = 10800
2700
2700
3875

20,075

Internal girth

H = 14,000

V = 20,075

34,075

T	D	S.	DESCRIPTION

TOTAL GIRTH

External = 40,250

Internal = 34,075

74,325

Less column pit bas

11/1500 = 16500 (BT1

2/1800 = 36000 (BT2

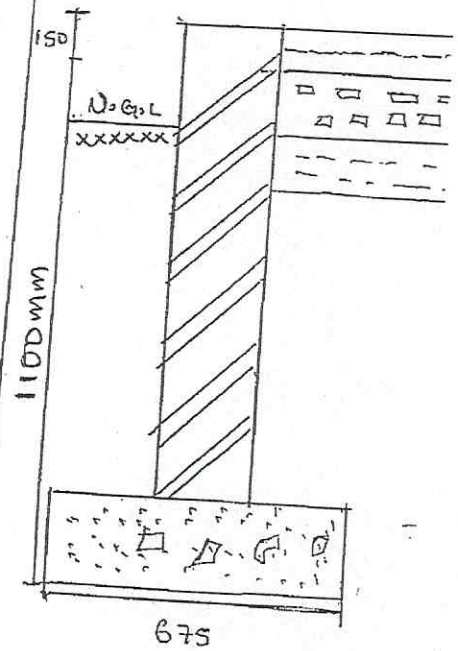
2000 (BT3

20,300

74,325 − 20,300

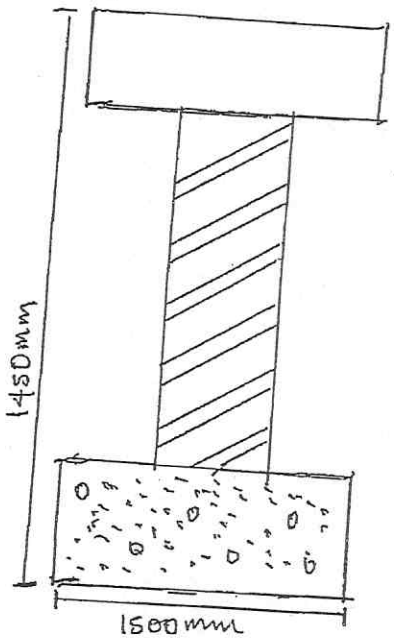
= 54,025

Depth of fdn.



T	D	S	DESCRIPTION
			Excavation of foundation trench starting at Surface strip level max depth not exceeding 2m
			1 · 5 · 6 · 101
	54·03		
	0·68		
	1·10	40·41	

Pit EXCAVATION



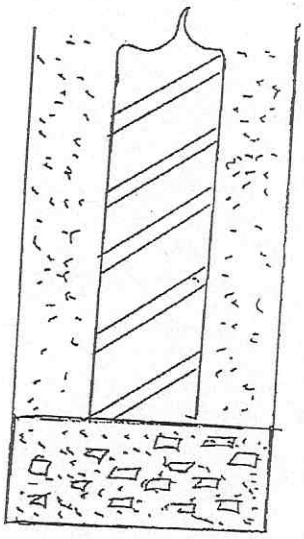
Excavate foundation pit width > 0·30m max depth > 1·00m
Commencing from strip level

1 · 5 · 6 · 2

11/	1·50		
	1·50		
	1·45	3·26	
2/	1·80		
	1·50		
	1·45	3·92	
	2·00		
	1·50		
	1·45	4·35	
		11·53	

(BT1) (BT2) (BT) (BT1)

T	D	S	DESCRIPTION
			BACK FILLING



H = 1100

less T/S 150 — 150 — 950

less conc thickness 150 — 150 — 800

filling to excavate all depth 70·25m arising fr excavation

2/	54·03		
	0·80		
	0·23	19·88	

Levelling AND Compact M²

Levelling and compacting the bottom of excavate

Ditto Pit

	54·03		
	0·68	36·74	
11/	1·50		
	1·50	24·75	

(BT1)

T	D	S	DESCRIPTION
2/	1.80		
	1.50	10.80	
	2.00		
	1.50	3.00	
		75.29	

BT2

BT3

SURFACE TREATMENT

TRENCH

Prepared and apply diedrex ~~&~~ anti-termite Solution to bottom & side to excavade.

Bottom

	54.03		
	0.68	36.74	

Ditto to pit.

BT1

11/	1.50		
	1.50	24.75	
2/	1.80		
	1.50	6.48	
	2.00		
	1.50	3.00	
		34.21	

SIDES

2/	54.03		
	1.10	118.87	
11/4/	1.50		
	1.45	95.7	
2/4/	1.80		
	1.45	20.88	
1/4/	2.80		
	1.45	11.60	
		128.18	

Ditto to pit

BT1

BT2

BT3

162.39 M2

T	D	S	DESCRIPTION

EARTHWORK SUPP

M2

Trench.

Earth work suppo to faces of excavat Max < 1.50m dept between opp faces < 2.00 m

2/	54.03		
	0.68	73.48	

Bottom

Ditto pit max dep 1.00 m

11/4/	1.50		
	1.45	95.7	
2/2/	3.30		
	1.45	19.14	
4/	2.00		
	1.45	11.6	
		126.44	

BT1

1800
1500
3300

BT2

1.5.8.1.1

199.92 m2

LATERITE FILLING M3

Compacted laterite fill ~~&~~ 50 mm thick spread in 150 mm layers well roun & consolidation tr Cross all to access funct finishes

1.5.12.2.2

	3.00		
	2.70		
	0.15	1.215	
	2.78		
	2.70		
	0.15	1.13	

Office -

Office 2

T	D	S	DESCRIPTION
	2.70		
	1.95		
	0.15	0.79	Sec office
	2.70		
	1.20		
	0.15	0.486	Lobby
	2.70		
	2.70		
	0.15	1.10	Bath w.c
	2.70		
	2.25		
	0.15	0.91	Lobby to sec office
	3.88		
	2.00		
	0.15	1.16	Stairs
	4.40		
	4.27		
	0.15	2.82	
		8.39	

HARDCORE FILLING M3

Hardcore filling 300 mm thick imported hardcore filling to make upto level underground floor slab.

	3.00		
	2.70		
	0.30	2.43	Office 1
	2.78		
	2.70		
	0.30	2.25	Office 2
	2.70		
	1.95		
	0.30	1.58	Sec office
	2.70		
	1.20		
	0.30	0.097	Lobby
	2.70		
	2.70		
	0.30	2.19	Bath w.c
	2.70		
	2.25		
	0.30	1.82	Lobby to sec office
	3.88		
	2.00		
	0.30	2.33	Stairs

T	D	S	DESCRIPTION
	4.40		
	4.27		
	0.30	5.64	
		19.21	19.21 M3

D.P.M M2

Two layer of d.p.m of polythene sheet 1200mm guage lapped folding

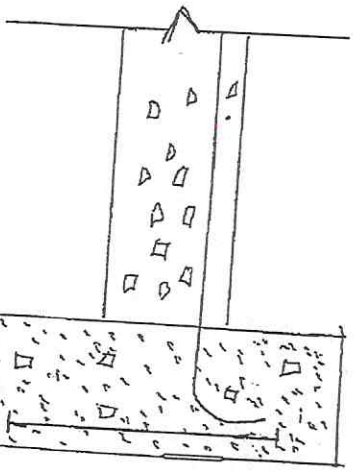
1.5.16.1

	4.20		
	4.40	18.48	Entrance power
	2.70		
	1.96	5.29	Sec office
	2.70		
	2.03	5.48	Lobby to sec
	3.88		
	2.00	7.76	Stairs
	2.20		
	2.78	6.12	Office 1
	2.70		
	1.20	3.24	Lobby to office
	2.70		
	3.00	8.10	Office 2
	2.70		
	1.05	2.84	Bath w.c

T	D	S	DESCRIPTION

CONCRETE WORK M3

Conc. in blinding



50 mm thick cement & sand blinding poured against faces of pit excavation and foundation trench.

1 : 11 : 2 : 1

T	D	S	DESCRIPTION
54·03			
0·68			
0·05		1·84	
11/ 1·50			
1·50			
0·05		1·24	
2/ 1·80			
1·50			
0·05		0·27	
2·00			
1·50			
0·05		0·15	
		3·50	

Ditto to pit

(BT1)

(BT2)

(BT3)

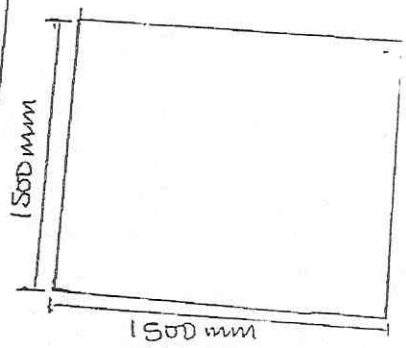
Conc. in fdn

Plain in situ conc. 1 : 3 : 6 · 20mm agg. in foundation trench

1 : 11 : 1 : 2

T	D	S	DESCRIPTION
54·03			
0·68			
0·23		8·45	

Conc. in pit ba



Rein'd in situ conc. Mix 1 : 2 : 4 19mm ag pit base 300 thick filled into formwork o well poured.

1 : 11 : 2 : 1 : 2 : 2

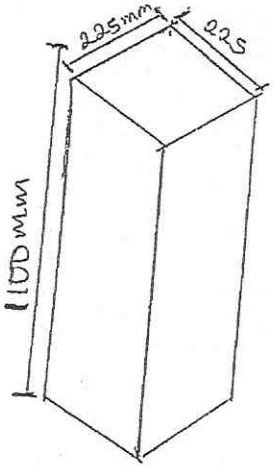
T	D	S	DESCRIPTION
11/ 1·50			
1·50			
0·30		7·23	
2/ 1·80			
1·50			
0·30		1·62	
1·20			
1·50			
0·30		0·54	
		9·39	

(BT1)

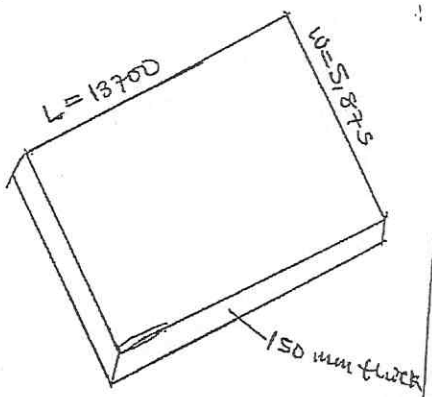
(BT2)

(BT3)

CONCRETE IN COLOUR M3



T	D	S	DESCRIPTION
			Reinf'd insitu concrete mix 1:2:4 19mm agg in Column 225 mm thick filled into formwork & well packed
			1 | 1 | 85 | 1 | 0 | 1
			$\pi = 3.142$ $r = \frac{d}{2} = \frac{225}{2} = 113^2 = 12.77$
3	1.10		Col 1
	3.142		
	12.77	182.71	
3	1.10		Col 2
	0.23		
	0.23	0.18	
8	1.10		Col 4
	0.23		
	0.23	0.47	
		183.06	



Reinf'd insitu conc. 1:2:4 — 19mm agg in floor slab 150mm thick filled into formwork & well pounded.

1 | 1 | 7 | 1

13.70			
5.88			
0.15	12.08		
	12.08	= 2	
6.98			
2.23			
0.15	2.38		
	2.38		

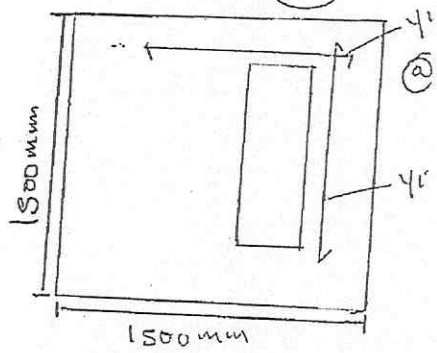
10 m²

Ddt void area

9.75 m³

T	D	S	DESCRIPTION
			REINFORCEMENT (Kg)
			Reinf'd in Col. bar

BT1



L = 1500

less
Con. cover
2 ce 2/25 — 50

1450

Add
bend
$2\phi^2$
2/12/12 — 288

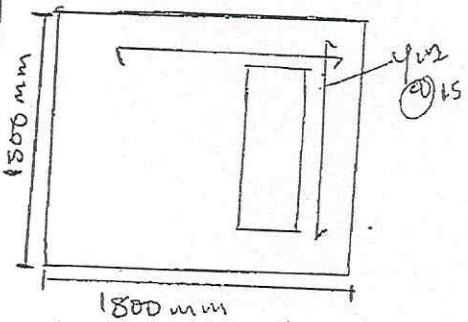
1738

No of reinf'd required

150 | 1500 | 10+1

= 11nr

Base type (2)



L = 1500

less
Con cover
2 ce 2/25 — 50

1450

T	D	S	DESCRIPTION

Add
Hookbent
2ø2
2/12/12 — 288
1738

No of reinf'd required

150 | 1800 | 12+1

= 13 nr

W

1800

Less
2ce cover
2/25 — 50
1750

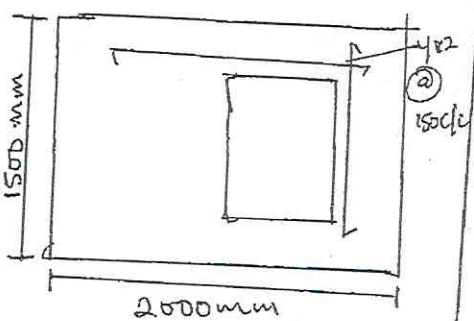
Add
Hookbent
2ø2
2/12/12 — 288
2,038

No of reinf'd required

150 | 1500 | 10+1

= 11 nrs.

Base typ 3



L = 2000

Less
2ce cover
2/25 — 50
1950

T	D	S	DESCRIPTION

Add
Hookbent
2ø2
2/12/12 — 288
2,238

No of reinf'd required

150 | 1500 | 10+1

= 11 nrs

W

1500

Less
2ce cover
2/25 — 50
1450

Add
Hookbent
2ø2
2/12/12 — 288
1738

No of reinf'd required

150 | 2000 | 13·3+1

= 14 nrs.

High yield tensile
12mm ø reinf'd bar:
Column base
1·11·34·1·2

11/1/2	1·74	421·08
13/2/1	1·74	45·24
13/2/2	2·04	44·88
11/2·24		24·64
14/1·74		24·36
		560·2

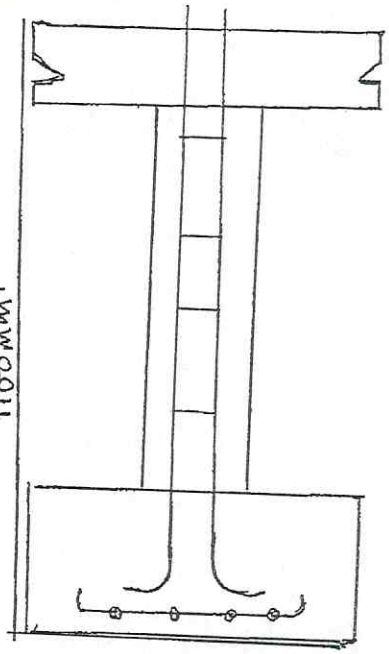
$Kg = \frac{\emptyset^2 \times 0.222}{36}$

0.888×560.20

= 497.46 Kg

T	D	S	DESCRIPTION

Reinf't to Column



L = 1100

Less conc. cover 25	25	
	1075	
Less bar thickness 2/16	32	
	1,043	
Add bend 2Ø² 2/16/16	512	
	1,555	
Add. Starter bar 450	450	
	2005	

High yield tensile 16mm Ø reinforced bar to Column base

1 · 11 · 34 · 1 · 1

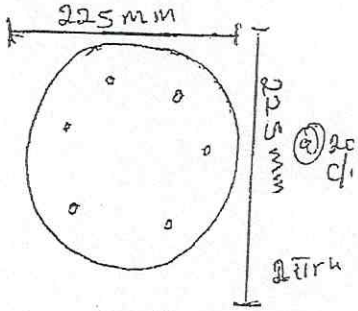
11/4	1.55	68.20
2/4	1.55	12.40
4	1.55	6.20
		86.80

× 1.579 kg

= 137.06 kg

T	D	S	DESCRIPTION

Stirrup & Links



girth = 225mm

Less cover 25	25
	4/200
	800

Add hookyent 2Ø² 2/10/10

200

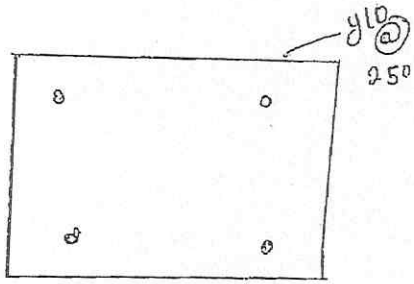
1000

100 required in column.

200 | 1100 | 5.5+1

= 7nrs

Column 2



length of stirrup is 900

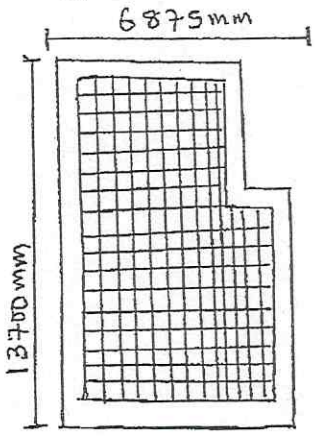
100 required in column

250 | 1100 | 4.4+1

5nr

T	D	S	DESCRIPTION
			High yield steel reinft bar 10mm in foundation column as stirrup and link.
			1·11·20·1·
11/2			
3.142	0·50	34·56	
2/5	0·40	16·00	
5	0·40	50	
		48·56	× 0·617
			= 29·65 kg.

FABRIC MESH



	OLal	OLab
	13700	6825
Less 2ce cover 2/25	50	50
	13,650	6825

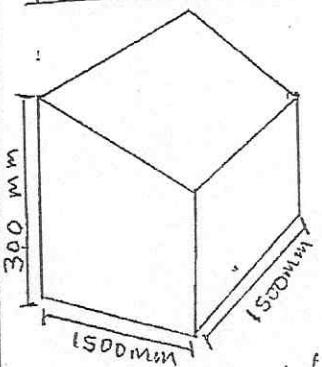
BRC fabric mesh reinft weight 150kg/m² laid on floor slab to receive Concrete

1·11·37·1·2

Ddt. void

	13·70		
	6·88	94·26	
	6·70		
	2·22	14·87	
		79·39	

T	D	S	DESCRIPTION
			formwork
			formwork to Col ba

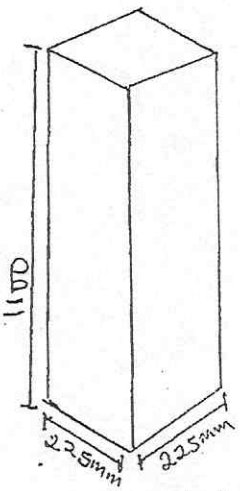


Sawn treated h/w formwork for col-bas Max depth 0·30m.

1·11·13·1

11/4	1·50		
	1·20	79·20	
2/2	3·30		
	1·20	15·84	
2	3·5		
	1·20	8·40	
		103·44	

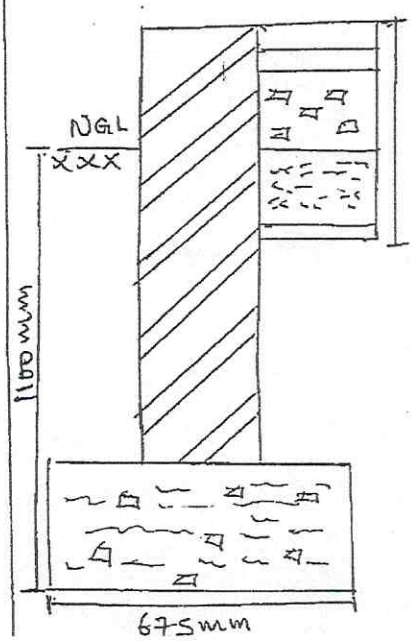
formwork to Co



Sawn treated h/w formwork for side of Column. 1100mm

11/2			
3.142	0·11		
	1·10	8·36	
2/4	0·23		
	1·10	2·02	
4	0·23		
	1·10	1·012	
		11·39	

T	D	S	DESCRIPTION
			formwork to edges of slab
			L = 13700
			W = 6875
			Sawn treated h/w formwork to edges of floor slab to provide smooth finishing not exceeding 225mm.
			1.11.24.1
	2/13.70	27.40	
	2/6.88	13.76	
		41.16	
			BLOCK WORK M²
			Ext girth = 40250
			Internal girth = 34,075
			74,325
			less
			Cont. thickness
			14/225 3150
			71,175



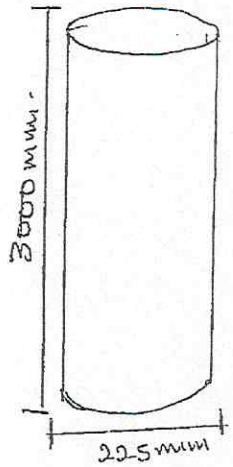
T	D	S	DESCRIPTION
			Depth = 1100
			less
			Con. footing 300
			300
			800
			less
			blinding 50
			50
			750
			Block in fdn 225; 225×450mm hollow Sandcrete block fill Solid with hand con (1:3) bedded & join in C&S mortar laid in Stretche bond in foundatio
			1.11.1.20.1.1
	71018		
	0.75	53.39	

T	D	S	DESCRIPTION	T	D	S	DESCRIPTION
			Finishings				
			External rendering to block work M²				
			14mm thick C&S mortar (1:3) rendered to fdn wall				
			L = 13700				
			W = 6875				
			2 | 20575				
			41,150				
	41·15						
	0·60	24·69					
			PAINTING				
			Apply for coat of texture paint as rendered wall.				
	41·15						
	0·60	24·69					

T	D	S	DESCRIPTION
			SUPER STRUCTURE ALL PROVISIONAL
			1. DESCRIPTION
			2. FRAME WORK
			— Conc. in Colum
			— Conc. in beam
			— Reinf't in Column.
			— Reinf't in beam
			— Stirrup in column
			— Stirrup in beam
			— formwork in column
			— formwork in beam.
			3. External & internal walls
			— conc. in lintel
			— Reinf't in lintel
			— stirrup & links in lintel
			— formwork in lintel
			— Block work
			→ Doors & window schedule
			4. finishes
			— wall finishing
			— floor finishing
			— ceiling finishing
			DESCRIPTION of WORK
			The work measured in this Section comprised of super structural work in ground floor
			Frame Structure
			Concrete in col M3

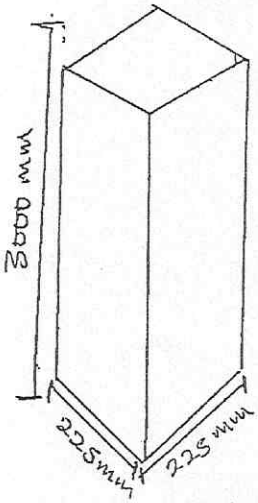
T	D	S	DESCRIPTION
3/2	3.142		
	12.65		
	3.00	715.43	
	3.00		
	0.23		
	0.23	3.81	
		719.23	

(COL 1)



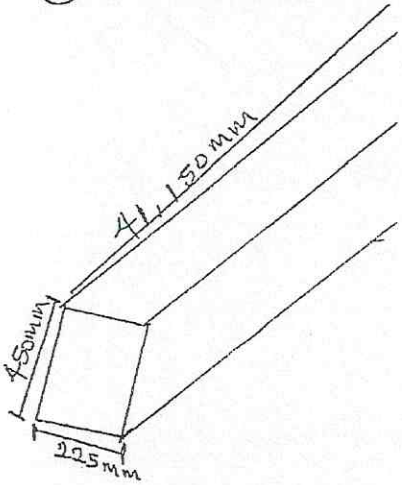
Typ 2h.

(COL 2,8

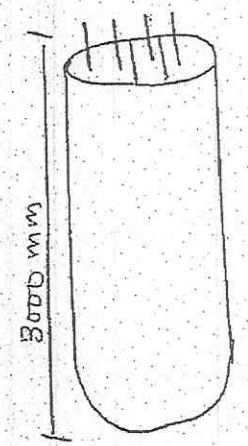


Reinforced with conc. 1:2:4 19mm agg in colum 225mm thick filled into formwork and well packe 1:11:5:1:1

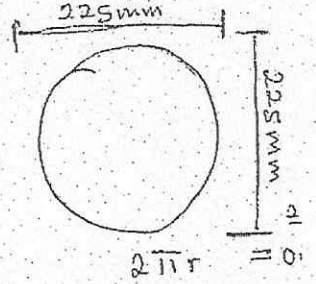
Concrete in beam



T	D	S	DESCRIPTION
			Reinforced insitu conc. mix 1:2:4 19mm agg in beam running on external girth of the building
			1.11.7.3
	41.15		
	0.45		
	0.23	4.25	
			Reinft to beam
			L = 41150
			less cover .25
			41125
			Add bends $2\phi^2$
			2/16/16 512
			41637
			16mm at high yield reinft bar in beam.
			1.11.84.1.1
6/	41.064	249.82	x 1.578
			= 394.23 kg
			Reinft in col



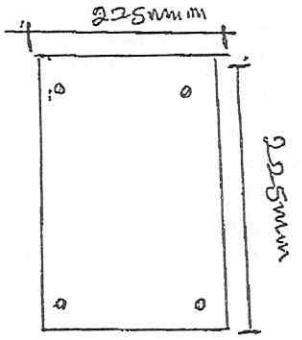
T	D	S	DESCRIPTION
			L = 3000
			less cover .25 25
			2975
			Add bend $2\phi^2$
			2/16/16 512
			3487
			16mm at high yield reinft bar in col
			1.11.84.1.1
			Col.
11/6/	3.49	230.34	
5/4/	3.49	69.80	
		300.14	x 1.578 Col 284
			= 473.62 kg
			Stirrups in col.

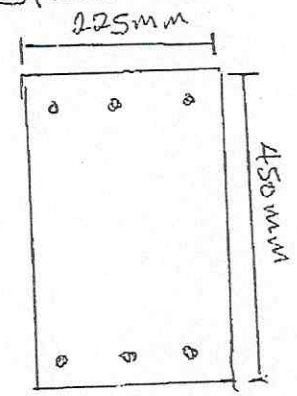


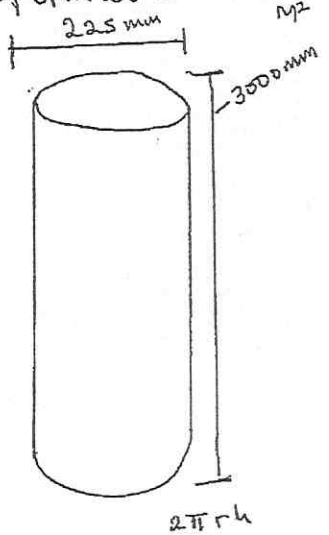
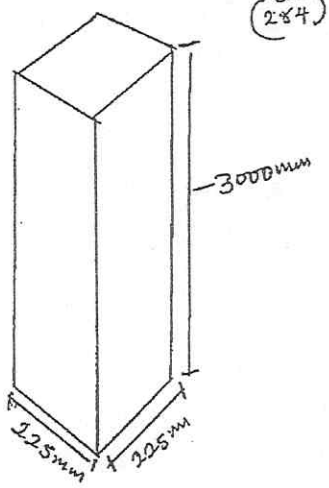
$2 \times 3.142 \times 112.5$

$= 706.95$

less cover 2/25	50	
	656.95	
Add Hookbent $2\phi^2$ 2/10/10	200	
	856.95	

T	D	S	DESCRIPTION
			Stirrup in col.
			no required in col.
			200 | 3000 | 15+1
			= 16nr
			
			girth 225
			less cover 2/25 — 50 — 4/175 — 700
			Add Hookbend 2/10/10 — 200 — 900
			nr required in col.
			200 | 3000 | 15+1
			= 16nr
			10 mm high yield steel reinf't bar as stirrup & link to column
			1.11.39.14
11/16	0.86	151.36	
5/16	0.90	72.00	
		223.36	× 0.616
			= 137.73 kg

T	D	S	DESCRIPTION
			Stirrup in beam
			
			girth 675
			less cover 2/25 — 50 — 2/625 — 1250
			Add Hookbend 2/10/10 — 200 — 1450
			no required in bea
			200 | 44750 | 223.87
			= 225nr
			10 mm high yield st reinf't bar as stirru & link to beam
225	1.45	326.25	× 0.616
			= 201.19 kg

T	D	S	DESCRIPTION
			formwork in column ①
			
			2 X 3.142 X 112.5
			= 706.95
			
			Seaon. treated soft wood formwork to colum max depth 300mm high firm ground floor slab.
			1.11.20.1
3	3.00		
	0.71	6.39	
3/8/4	3.00		
	0.23	66.24	
		72.63	

T	D	S	DESCRIPTION
			form work in beam
			Seaon treated h/w formwork to sides and support to beam.
			1.11.17.1
2	44.75		
	0.45	39.25	37.04
			③ External and internal wall
			Concrete in Lintel
			Door 1
			L = 900
			Add proj. 2/225 450
			1350
			Door 2
			L = 750
			Add pro 2/225 450
			1200
			Window 1
			L = 1500
			Add pro 2/225 450
			1950
			Window 2
			L = 1800
			Add pro 2/225 450
			2250

T	D	S	DESCRIPTION
			window 3
			L = 900
			Add pro 2/225 — 450
			1350
			window 4
			L = 600
			Add pro 2/225 — 450
			950
			window 5
			L = 1200
			Add pro 2/225 — 450
			1650
			Rempt in situ conc. 1:2:4 19mm agg in lintel 225 mm filled into finishes & well packed
			1.0 | 1.0 2.0 | 1.0 2.0 | 1
6	1.35		
	0.23		
	0.23	0.43	(D1)
	1.20		
	0.23		
	0.23	0.06	(D2)
2	1.95		
	0.23		
	0.23	0.21	(W1)
3	2.25		
	0.23		
	0.23	0.36	(W2)
	1.35		
	0.23		
	0.23	0.07	(W3)

T	D	S	DESCRIPTION
	0.95		
	0.23		(W4
	0.23	0.05	
	1.67		
	0.23		(W5
	0.23	0.09	
		1.27	

Rempt in lintel

D1

L = 1350

Less 2ce cover 2/25 — 50

1300

Add thickbem 2/16/16 — 512

1812

D2

L = 1200

Less 2ce cover 2/25 — 50

1150

Add thickbent 2/16/16 — 512

1662

window 1

L = 1950

Less 2ce cover 2/25 — 50

1900

Add thickbent 2/16/16 — 512

2412

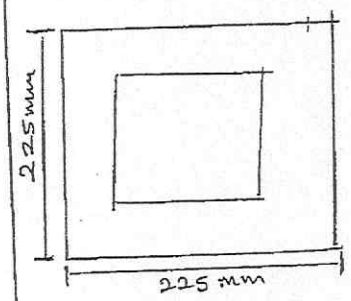
T	D	S	DESCRIPTION
			Window 2
			L = 2250
			less 2cc cover 2/25 — 50
			2200
			Add Hookbent 2 ϕ^2 2/16/16 — 512
			2712
			Window 3
			L = 1350
			less 2cc cover 2/25 — 50
			1300
			Add Hookbent 2 ϕ^2 2/16/16 — 512
			1812
			Window 4
			L = 950
			less 2cc cover 2/25 — 50
			900
			Add Hookbent 2 ϕ^2 2/16/16 — 512
			1412
			Window 5
			L = 1650
			less 2cc cover 2/25 — 50
			1600
			Add Hookbent 2 ϕ^2 2/16/16 — 512
			2112

T	D	S	DESCRIPTION
6/8	1.081	43.44	16mm high tensile rempf in numerical size straight and bent in lentel
1/4	1.66	6.64	1+11+34+1+1
2/4	2.41	19.28	(D1)
3/4	2.71	32.52	(D2)
1/4	1.81	7.24	(101)
4	1.41	5.64	(102)
4	2.11	8.44	(103)
		123.2	(104)

X 1.579

= 194.53 Kg.

STIRRUPS IN Lintel



D1

length of stirrup is 900mm

200 | 1812 | 9.06+1

10 nr

D2

length of stirrup is 900

200 | 1662 | 8.3+1

9 nr

T	D	S	DESCRIPTION
			D1
			length of stirrup is 900
			200 | 2412 | 12.06+1
			= 13 nr
			window 2.
			200 | 2712 | 13.6+1
			= 15 nr
			W3
			length of stirrup is 900
			200 | 1812 | 9.06+1
			= 11 nr
			window 4
			length of stirrup is 900mm
			200 | 1412 | 7.06+1
			8 nr
			window 5
			length of stirrup is 900 mm
			200 | 2112 | 10.56+1
			12 nr
			10mm high yield steel reinf as stirrup for Lintel
			1 o 11 · 3 o 1 · 4

T	D	S	DESCRIPTION
10	0.90	9.00	
9	0.90	8.10	
13	0.90	11.70	
15	0.90	13.50	
11	0.90	9.90	
9	0.90	8.10	
12	0.90	10.8	
		71.10	X 0.616
			= 43.80 kg.

~~form work to lintel~~

Sawn treated hdw form work to the side of Lint

D1

Lint

6	1.35		
	0.68	5.51	
1	1.20		
	0.68	0.82	
2	1.65		
	0.68	2.24	
3	2.25		
	0.68	4.59	
1	1.35		
	0.68	0.92	
1	1.50		
	0.68	1.02	
1	1.65		
	0.68	1.12	
		14.22	

(D1)
(D2)
(W1)
(W2)
(W3)
(W4)
(W5)

T	D	S	DESCRIPTION
			BLOCK WORK
			450 X 225 X 225 Hollow Sand crete block laid on Stretcher bond Jointed with c&s mix (1:4)
			tight 3150
			less floor slab 150
			3,000
	54.03		
	3.00	162.09	
			Ddt openings
			(D1
6	2.10		
	0.90	11.34	(D2
	2.10		
	0.75	1.58	
2	1.20		(W1
	1.50	3.60	
3	1.20		(W2
	1.80	6.48	
	1.20		(W3
	0.90	1.08	
	0.60		(W4
	0.60	0.36	
	1.20		
	1.20	1.44	
		32.96	

T	D	S	DESCRIPTION
			Doors & window Schedules (or
			Door 1
			Solid flush ~~door~~ pane door with season wood
6			
	1	6	2100mm x 900mm
			Door 2
			Solid flush panel do with season wood
1			
	1	1	750mm x 2100mm
			window 1 & 2
			-Aluminium frame & sliding window
2			
	1	2	1200mm x 1500mm
3			
	1	3	1200mm x 1800mm
			window 3
			-Aluminium frame window.
1			
	1	1	1200mm x 900mm
			window 4 & 5
			-Aluminium frame & sliding window
1			
	1	1	600mm x 600mm
1			
	1	1	1200mm x 1200mm

T	D	S	DESCRIPTION
			finishing
			Wall finishing
			External wall
			13700
			6875
			2/20,575
			41,150
			14mm thick C/S (1:4) rendering to wall
			&
			prepare and apply coat Emulsion paint or rendered wall
			1.28-1.1
	41.15		
	3.00	123.45	
	9.20		
	3.00	27.6	
2/	1.20		
	1.50	3.60	
3/	1.20		
	1.80	6.48	
	1.20		
	0.90	1.08	
	0.60		
	0.60	0.36	
		84.83	
			Internal walls
			Entrance power
			4200
			4399
			2/8599
			17,198
	17.20		
	3.00	51.60	

T	D	S	DESCRIPTION
			Sec office
			2700
			1959
			2/4659
			9,318
	9.32		
	3.00	27.96	
			Lobby to sec. off
			2700
			2025
			2/4725
			9450
	9.45		
	3.00	28.35	
			Stairs
			2825
			4175
			2/7000
			14,000
	14.00		
	3.00	42.00	
			Office 1
			2700
			2775
	18.98		
	3.00	32.86	2/5475
			10,950
			Office 2
			2700
			3000
	11.40		2/5700
	3.00	34.20	11,400
			Lobby to office 1
			2700
			2100
			2/4,800
			9600
	9.60		
	3.00	28.81	

T	D	S	DESCRIPTION
			Bath W.C
			2700
			1050
			2/3750
			7500
	7.50		
	3.00	22.50	
		268.27	
			Odt openings
	6/2.10		(D1
	0.90	11.34	
	2.10		(D2
	0.75	1.58	
	2/1.20		(W1
	1.50	3.60	
	3/1.20		(W2
	1.80	4.32	
	1.20		(W3
	0.90	1.08	
	0.60		(W4
	0.60	0.36	
	1.20		(W5
	1.20	1.44	
		24.55	
			16mm thick C&S
			(13.4) rendered to other
			paint of wall exceeding 300mm thick
			&
			prepare and supply
			2 coat emulsion paint
			to W.C
			1.28.2.2.

T	D	S	DESCRIPTION
			floor finishing
			10mm thick vitrified floor
			with cement and sand
			screeded bed (1:3)
			1.28.2.2
	3.00		(Office 1
	2.70	8.10	
	2.70		(Office 2
	2.78	7.51	
	2.70		(Sec office
	1.95	5.27	
	2.70		(lobby to sec
	2.25	6.08	
	4.20		(Entrance pove
	4.40	18.48	
	2.55		(W.C Bath u
	1.05	2.68	
		48.12	
			Ceiling finishing
			paint and apply 3
			coat of emulsion pou
			to ceiling suffit of
			the slab.
			1.28.9.2
	3.00		(Office 1
	2.70	8.10	
	2.70		(Office 2
	2.78	7.51	
	2.70		(Sec office
	1.95	5.27	
	2.70		(Lobby to se
	2.25	6.08	
	4.20		(Entrance po
	4.40	18.48	
	2.55		(Bath W.C
	1.05	2.68	
		48.12	

T	D	S	DESCRIPTION
			firs floor taking off list
			1- Description
			2. frame work
			— concrete in slab
			— concrete in column
			— concrete in beam.
			— Reinf't in slab
			— Reinf't in column
			→ Reinf't in beam
			— Stirrups in column
			— Stirrup in beam
			→ form work to edges of slab
			→ formwork to the suffit of slab.
			← form work in colum
			→ form work in beam.
			3. External & internal wall.
			— concrete in lintel
			— Reinf't in lintel
			→ Stirrups in lintel
			— form work in lintel
			— Block work
			— Doors & windows schedule
			4. finishings
			—wall finishing
			→ floor finishing
			→ ceiling finishing

T	D	S	DESCRIPTION
			① Description of work
			the work measured thus section comprise of superstructural wo in first floor
			2. frame work
			Concrete in slab M³
			Reinf'd conc. insitw mix. (1:2:4) 19mm a with the thickness of 150 mm.
			14.90
			7.48
			0.15 16.72
			ddt void
			7.58
			2.18
			0.15 2.48
			11.24
			Concrete in colum M³
			Reinf'd insitu concre 1:2:4 19mm agg in column 225 mm thick filled into formwork & well packed.
			1.11.5.1.1
			(Col 2
3	3		3.142
			12.65
			3.00 715.4
			(Col 3
3			3.00
			0.23
			0.23 0.48
			715.88

T	D	S	DESCRIPTION
			Concrete in beam
			Beam 1
			600+4425+600
			= 5625
			Beam 2
			= 2225
			Beam 3
			600+2925+22925+23888
			= 26,458
			Beam 4
			2062+600 = 8062
			Beams
			= 4,138
			Beam 6
			600+2925+2925+2095 +2075 = 10620
			Reinf'd insitu conc. mix 1:2:4 19mm agg in beam running on external girth in the building
			1.11.7.5
	5.63		
	0.45		
	0.23	0.58	
	2.23		
	0.45		
	0.23	0.23	
	26.46		
	0.45		
	0.23	2.74	
	8.06		
	0.45		
	0.23	0.83	
	4.14		
	0.45		
	0.23	0.43	
	10.62		
	0.45		
	0.23	1.10	

T	D	S	DESCRIPTION
		5.91	
			Reinf't in Slab 1
			L = 14900
			less Cover 2/25 — 50
			14850
			Add Hook bend 2Ø2 2/12/12 — 288
			15,138
			Add Lap — 500
			15638
			190 required
			200 | 7475 | 37.4+1
			= 38 nr
			W = 7475
			less Cover 2/25 — 50
			7425
			Add Hook bend 2Ø2 2/12/12 — 288
			7713
			Add Lap 500 — 500
			8,213
			Not required
			200 | 14900 | 74.5+1
			12mm high yield steel, run in slab 76 nr
			Reinforced insitu conc mix 1:2:4 19mm agg

T	D	S	DESCRIPTION
38	15.64	594.32	
76	8.21	623.96	
		1218.28	× 0.888
			= 1081.83 kg.

Reinf't in column

L = 3000

less 2 × Cover	25
	2975
Add bent 2Ø 2/16/16	512
	3,487

16 mm ø high yield reinf't bar in col.

1.11.34 | 0.1

T	D	S	DESCRIPTION
3/6	3.49	62.82	
3/4	3.49	41.88	
		104.70	× 1.579
			= 165.32 kg

Reinf't in beam

Beam 1 = 5625

Beam no 2 less Cover	50
	5,575
Add bent 2Ø 2/16/16	512
	6,087

Beam 2

L = 2225

less Cover	50
	2175
Add bent 2Ø 2/16/16	512
	2687

Beam 3

L = 26454

less Cover	50
	26404
Add block bent 2Ø 2/16/16	512
	26,916

Beam 4

L = 8062

less cover	50
	8012
Add bent 2Ø 2/16/16	512
	8524

Beam 5

L = 4138

less Cover	50
	4088
Add block bent 2Ø 2/16/16	512
	4600

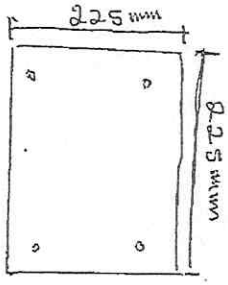
Beam 6

L = 10620

less Cover	50
	10570
Add bent 2Ø 2/16/16	512
	11,082

T	D	S	DESCRIPTION
			16mm dia high yield reinft bar in beam
			1.11.34.1.1
6	6.09	36.54	
6	2.18	13.08	
6	26.92	161.52	
6	8.53	51.18	
6	4.60	27.6	
6	10.57	63.42	
6	11.08	66.48	
		419.82	X 1.579
			= 662.89 kg

Stirrup in column (COL 2)



girth 225

Less cover 2/25 — 50

4/175 — 700

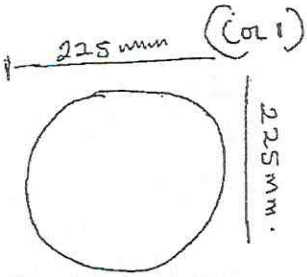
Add bent hook 2ø2 2/10/10 — 200

900

100 requirue

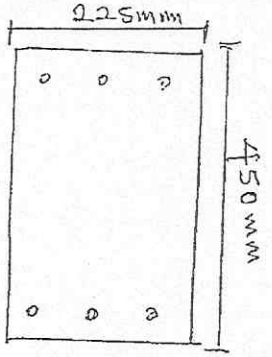
200 | 3000 | 15+1

= 16nr



T	D	S	DESCRIPTION
			225/2 = 2πr
			2 x 3.142 x 112.5 = 706
			Less cover — 50
			656.95
			Add bent 2ø2 2/10/10 — 200
			856.95
			200 / 3000 / 15+1 = 16nr
			10 mm high yield steel reinft bar as stirrup to col.
			1.11.39.1.4
16	0.85	13.76	
16	0.90	14.42	
		28.18	X 0.617
			= 17.37 kg.

Stirrup in beam



girth 675

Less cover — 50

2/625

1250

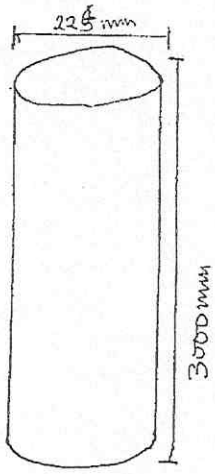
Add bent 2ø2 2/10/10 — 200

1450

T	D	S	DESCRIPTION
			Beam 1 length of stirup is 1450 200 | 5625 | 28.18+1 = 29nr
			Beam 2 length of stirup is 1450 200 | 2225 | 11.13+1 = 12nr
			Beam 3 length of stirup is 1450 200 | 26454 | 132.~~27~~+1 = 133nr
			Beam 4 length of stirup is 1450 200 | 8062 | 40.31+1 41nr
			Beam 5 length of stirup is 1450 200 | 4138 | 20.69+1 22nr
			Beam 6 length of stirup is 1450 200 | 10620 | 53.1+1 54nr
			10mm high yield steel reinf^{2}t bar as stirup and link to beam 10 | 11.34 | 0.1 | 4

T	D	S	DESCRIPTION
29	1.45	42.05	
12	1.45	17.40	
133	1.45	192.85	
41	1.45	59.45	
22	1.45	31.90	
54	1.45	78.30	
		421.95	X 0.617 = 260.34kg.

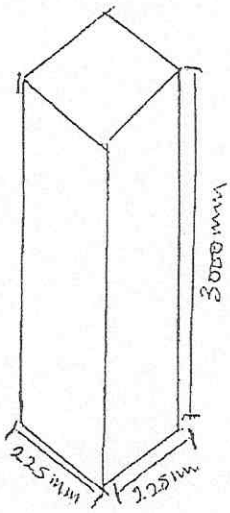
form work to col.



$2\pi rh$

$2 \times 3.142 \times 112.5$

$= 706.95$



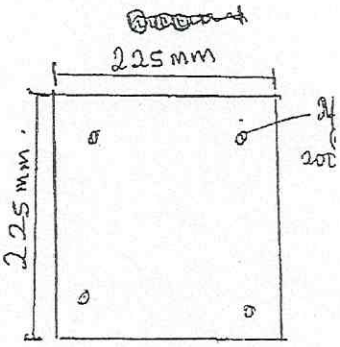
T	D	S	DESCRIPTION
			Sawn treated soft wood formwork to the ~~Column~~ Side of Col.
			1.11.2001
3	3.00		
	0.71	6.39	
3/4	3.00		
	0.23	8.28	
		14.67	
			↓
			form work in beam
			Sawn treated h/w formwork to sides ~~and~~ of the beam.
			1.11.17.1
2	5.63		
	0.45	5.07	
2	2.22		
	0.45	2.00	
2	26.45		
	0.45	23.80	
2	8.06		
	0.45	7.25	
2	4.14		
	0.45	3.73	
2	10.62		
	0.45	9.56	
		51.41	
			↓
			form work to the edges of slab.
			Sawn sw treated h/w to the edges of slab not exceeding 150mm.

T	D	S	DESCRIPTION
2	14.90	29.80	
2	7.48	14.96	
		44.76	
			↓
			form work to the Suffit of the Slab
	14.90		
	7.48	111.45	
			↓
			(3) External and Internal wall
			Concrete in lintel.
			D1
			L = 1200
			Add
			Pro 2/225 450
			1650
			Door2
			L = 750
			Add
			projection 2/225 450
			1200
			Door3
			L = 900
			Add
			pro 2/225 450
			1350

T	D	S	DESCRIPTION
			Window 1
			L = 1800
			Add pro 2/225 — 450
			2250
			Window 2
			L = 1500
			Add pro 2/225 — 450
			1950
			Window 3
			L = 600
			Add pro 2/225 — 450
			1050
			Rempt insitu conc. 1:2:4 19mm agg in lintel 225mm filled into finishes and well packed
			1.11.2.1.2.1
11	1.65		
	0.23		
	0.23	0.09	(D1)
2	1.20		
	0.23		
	0.23	0.23	(D2)
3	1.35		
	0.23		
	0.23	0.21	(D3)
3	2.25		
	0.23		
	0.23	0.36	(W1)
3	1.95		
	0.23		
	0.23	0.31	W2
3	1.05		
	0.23		
	0.23	0.17	
		1.37	

T	D	S	DESCRIPTION
			Rempt in lintel
			Door 1
			L = 1650
			Less cover 2/25 — 50
			1600
			Add hook bent 2Ø2 2/16/16 — 512
			2112
			Door 2
			L = 1200
			Less cover 2/25 — 50
			1150
			Add hook bent 2Ø2 2/16/16 — 512
			1662
			Door 3
			L = 1350
			Less cover 2/25 — 50
			1300
			Add hook bent 2Ø2 2/16/16 — 512
			1812
			Window 1
			L = 2250
			Less cover — 50
			2200
			Add hook bend 2Ø2 2/16/16 — 512
			2712

T	D	S	DESCRIPTION
			Window 2
			L = 1950
			Less 2ce cover 2/25 — 50
			1900
			Add Hook bent 2Ø² 2/16/16 — 512
			2412
			Window 3
			L = 1050
			Less cover — 50
			1000
			Add Hook bent 2Ø² 2/16/16 — 512
			1512
			16mm high tensile reinf in numerical size straight and bent in lintel
			1·11·3 4·10·1
1/4	2·11	8·44	(D1)
2/4	1·66	13·28	(D2)
3/4	1·81	21·72	(D3)
3/4	2·71	32·52	(W1)
3/4	2·41	28·92	(W2)
3/4	1·51	18·12	(W3)
		123·00	X 1·579
			194·217 kg.

T	D	S	DESCRIPTION
			Stirrup in Lintel
			
			Girth = 225
			Less cover — 50
			4/175
			700
			Add Hook bent 2Ø² 2/10/10 — 200
			900
			Door 1
			length of Stirrup is
			200 | 1850 | 8·25+
			= 9 nr
			Door 2
			length of Stirrup is c
			200 | 1200 | 6+1
			= 7 nr
			Door 3
			length of Stirrup is c
			200 | 1350 | 6·75+
			= 8 nr

T	D	S	DESCRIPTION
			window 1
			length of stirrup is 900
			200 | 2250 | 11.25+1
			= 12nr
			window 2
			length of stirrup is 900
			200 | 1950 | 9.75+1
			= 11nr
			window 3
			length of stirrup is 900
			200 | 1050 | 5.25+1
			= 6nr
			10 mm high yield steel reinforcement as stirrups in lintel
			1 0 11 0 3 0 1 0 4
1/9	0.90	8.10	
2/7	0.90	12.6	
3/8	0.90	21.60	
3/12	0.90	32.40	
3/11	0.90	29.70	
3/6	0.90	16.20	
		120.6	X 0.617
			74.41 kg.

T	D	S	DESCRIPTION
			formwork in lintel
			Sawn treated formwork to the side of lintel
2/1	1.65		(D1)
	0.68	2.24	
2/2	1.20		(D2)
	0.68	3.26	
3/2	1.30		(D3)
	0.68	5.30	
3/2	2.25		(W1)
	0.68	9.18	
3/2	1.95		(W2)
	0.68	7.98	
3/2	1.05		(W3)
	0.68	4.28	
		32.24	
			Blockwork
			L = 14900
			W = 7475
			2 / 22375
			Q = 44750
			internal gutter horizontal
			2250
			1200
			1800
			2400
			900
			5400
			13950

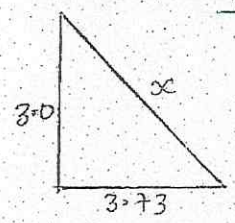
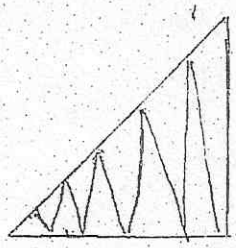
T	D	S	DESCRIPTION
			Vertical
			4175
			1200
	2/		1160
			1425
			= 9126
			internal gunth
			13950 + 9126
			Int = 23076
			Ex = 44750
			2/67826
			135,652
			less
			Collon Space
	6/	225	1350
			134,302
			Hight of building: 3000mm
			225 x 225 x 450 Hollow Sandcrete block filled with solid concrete (1:3) bedded and jointed in C/S mortar laid in stretcher bond in foundation.
		134.30	
		3.00	402.90
			Ddt. openings
			(D1
		2.10	
		1.20	2.52
	2/	2.10	(D2
		0.75	3.15
	3/	2.10	(D3
		0.90	5.67

T	D	S	DESCRIPTION
	8/	1.80	(W1
		1.20	6.48
	3/	1.50	(W2
		1.20	5.40
	3/	0.60	(W3
		0.60	1.08
			379.6m²
			Doors & window Schedules
			Door 1
			Double leave pantly glased aluminium frame door
1/	1	1	1200mm x 2100 mm
			Door 2
			Solid flush panel door with season c
2/	1	2	750mm x 2100 mm
			Door 3
			Solid flush panel door with seasone c
3/	1	3	900mm x 1200 mm
			Window 1, 2 & 3
			Aluminium glase and Sliding windeo
3/	1	3	1800mm x 1200mm
3/	1	3	1500 mm x 1200 mm
3/	1	3	600m x 600 mm.

T	D	S	DESCRIPTION
			4. finishings
			wall finishing
			14900
			7475
			2/22375
			44750
			14mm thick C/S (1:4) rendered to wall & prepare and apply 2 coat emulsion paint or rendered wall
		44.75	
		3.00	134.25
			Ddt. openings
			(D3)
	1/	2.10	
		0.90	1.89
			(W1)
	3/	1.80	
		1.20	6.48
			(W2)
	3/	1.50	
		1.20	5.40
			(W3)
	3/	0.60	
		0.60	1.08
			149.40
			Internal wall
			meeting room
			10325
			5400
			2/15725
			31450
		31.45	
		3.00	94.35

T	D	S	DESCRIPTION
			General store
			2250
			1200
			2/3450
			6900
		6.90	
		3.00	20.70
			Stores wall
			4175
			2825
			2/7000
			14,000
		14.00	
		3.00	42.00
			W.C
			1200
			1163
			2/2363
			4726
	2/	4.73	
		3.00	28.38
			Lobby to WC
			2476
			1050
			2/3526
			7052
		7.05	
		3.00	21.15
			Kit
			2400
			1425
			2/3,825
			7650
		7.65	
		3.00	22.95
			229.53

T	D	S	DESCRIPTION
			Roof & Roof Covering
			— wall plate
			— Tie beam
			— Rafter
			— struct
			— king post
			— purlins
			— Ridge cap
			— fascial board
			— Roof covering
			— noggins.
			Wall plate
			100mm x 50mm hand wood wall plate
2	14.90	29.80	1.16.1.1.30.1
8	7.48	59.84	
		89.64	
			Tie beam
			W = 7475
			Less 2½ 225 — 225 — 7250
			No required
			1200 | 14900 | 12.4+1
			= 13nm
			100 mm x 50 mm hardwood tie beam
13	7.25	94.25	1.16.1.1.1.1

T	D	S	DESCRIPTION
			Rafter
			$\frac{7475}{2} = 373$
			
			$x^2 = a^2 + b^2$
			$x^2 = 3^2 + 3.73^2$
			$x^2 = 9 + 13.99$
			$x^2 = 22.99$
			$x = \sqrt{22.99}$
			$= 4.795$
			100 mm x 50mm Sawn treated hardwood raft
2/13	4.80	124.8	1.16.1.1.1.1
			Structs
			
			2700
			2400
			2100
			1800
			1500
			1200
			900
			600
			300
			13500
			100mm x 50mm Sawn treated hardwood struct
13/2	13.50	351.00	1.16.1.1.8.1

2c

T	D	S	DESCRIPTION
			King post
			Height 3000mm
			100mm x 50mm Sawn treated hardwood struct
13	3.00	39.00	1.16.1.1.8.1

Purlins

L = 14900 900 c/c

900 | 7475 | 8.3+1

= 9nr

2/9	14.90	268.20	

75mm x 50mm Sawn treated hardwood purlin.

1.16.1.1.2.1

Ridge cap

300mm girth ridge cap a.b.d

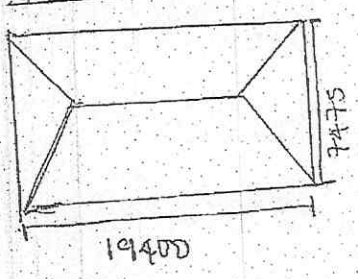
21.48

Fascial board

25mm x 300 mm hard wood fascial board

2/	14.90	29.80
2/	7.48	14.96
		44.76

Roof covering



T	D	S	DESCRIPTION
			L = 19400 W = 7475
			add projection 2/600 1200 = 20,600 1200 = 8675
2/	20.40		
	4.79	41.20	0.55 mm thick longspan
2/½/	8.68		Aluminium roofing sheet t
	4.79	41.85	nail to wood wood purl
		83.05	in accordance with manuf chues catelogue.

Noggin

meeting room

L = 10325 / 600 = 17+1 = 18nr

W = 5400 / 600 = 9+1 = 10nr

10.85

General Store

L = 2250 / 600 = 3.75+1 = 5nr

W = 1200 / 600 = 2+1 = 3nr

WC

L = 1163 / 600 = 1.9+1 = 3nr

W = 1200 / 600 = 2+1 = 3nr

Cloakroom to W.C

L = 2476 / 600 = 4+1 = 5nr

W = 1050 / 600 = 5+1 = 6nr

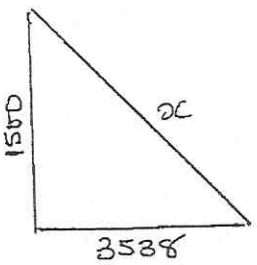
Kat

L = 2400 / 600 = 4+1 = 5nr

W = 1425 / 600 = 2.4+1 = 3nr

T	D	S	DESCRIPTION
			50x50 mm sawn treated hardwood noggins.
10	10.33	103.30	(meeting room
18	5.40	97.2	
3	2.25	6.75	(General store
5	1.20	6.00	
2/3	1.16	6.96	(WC
2/3	1.20	7.20	
6	2.48	14.88	(Lobby to WC
5	1.50	7.50	
3	2.40	7.20	(Kit
5	1.43	7.15	
		264.14	

Stair case



$x^2 = (1.5)^2 + (3.54)^2$

$x^2 = 2.25 + 12.53$

$x^2 = 14.78$

$x = \sqrt{14.78}$

$= 3.845\,m$

Concrete waist

$L = 3.845$

$W = 300$

thickness $= 150$

2	3.85		
	0.30		
	0.15	0.35	

T	D	S	DESCRIPTION
			Dewp't in waist
			$L = 3845$
			less cover 2/25 — 50
			3,795
			Add bend 2-Ø2 2/12/12 — 288
			4083
			$W = 300$
			less cover 2/25 — 50
			250
			150 | 250 | 1.6+1
			$= 3nr$
			12mm Ø bar high tensile laid in waist
2/3	3.85	23.10	$\times 0.888 = 20.51$ kg

Formwork in Sid waist

$L = 3845$ mm

$W = 300$ mm

2	3.85		
	0.30	2.31	

Side of waist

2	3.85	7.70	$L = 3845$

Concrete in tread & riser

$L = 150$

$W = 300$

$h = 150$

2			
18	0.15		
	0.60		
	0.15	0.51	

PROPOSED OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLADEL LOCATED AT ALAGBA LAYOUT IDO L.G.A OYO STATE.

ABSTRACT SHEET FOR SUBSTRUCTURAL WORK.

UPROOT OF TREES

Cutting down or removal of trees Scrup up to their root including filling void.

Girth 500mm — 1500mm

8nr

Girth 1500mm — 3000mm

2nr

SITE CLEARANCE

Clear site of existing vegetation scrup up to their root and fill void

104m²

TOPSOIL EXCAVATION

Excavate vegetation top soil 150mm depth comm. below existing ground level

104m²

TOP SOIL DISPOSAL

Remove vegetation topsoil and dispose off site to a distance of 1m in sport heap

16m3

TRENCH EXCAVATION

excavate foundation trench starting at surface strip level max depth not exceed 2m

40.41 ≈

≈ 40m³

Back filling

filling to excavate all depth 2 no: arising from excavation

20m3

LEVELLING & COMPACTING

Levelling and compacting the bottom of excavation

75.29

≈ 75m²

SURFACE TREATMENT

prepare and apply dredrex anti-termi solution to bottom & side of excav

182 m²

EARTH WORK SUPPORT

Earth work support to faces of excaval max < 1.50 m distance between opp faces < 2.00m

194.92

≈ 200m²

LATERITE FILLING

well compacted laterite filling 150mm thick spread in 150 mm layers wel ram & consolidation to cross all to access further finishes

8.39

≈ 8 m3

HARDCORE FILLING

well compacted hardcore filling 300mm thick imported to make up level underground floor slab

19.21 m³

≈ 19m3

PROPOSED OFFICE DEVELOPMENT FOR MR/DR OLUWOLE LOCATED AT ALAGBA LAYOUT IDO LGA OYO STATE

ABSTRACT SHEET FOR SUB STRUCTURE WORK

D.P.M

Two layer of dpm of polythene sheet 1200mm guage laid on filling

78.69

≈ 79 m^2

CONCRETE IN BLINDING

50 mm thick cement & sand blinding poured against faces of pit excavation and foundation trench.

2.50

≈ 4 m^3

CONCRETE IN FOUNDATION

plain insitu conc. 1:3:6 20mm agg in foundation trench

9 m^3

CONCRETE IN PIT BASE

Reinf't insitu conc. mix 1:2:4 19mm agg pit base 300 mm thick filled into formwork and well pored.

9 m^3

CONCRETE IN COLUMN

Reinft insitu conc. mix 1:2:4 19mm agg in column 225mm thick filled into formwork & well packed

133 m^3

CONCRETE IN SLAB

Reinft insitu conc. 1:2:4 19mm agg in floor slab 150mm thick filled into formwork & well packed

9.78

10 m^3

REINF'T IN COL. BASE

High yield tensile 12mm ϕ reinforced bar to column base

498 kg

REINF'T IN COL.

High yield tensile 16 mm ϕ reinf bar to column base

137 kg

STIRRUP & LINK IN COL.

High yield steel reinf't bar 10 mm in foundation column a stirrup and link

30 kg

FABRIC MESH

BRC fabric mesh reinft weight 150 kg/m^2 laid on floor slab to receive concrete

80 m^2

FORMWORK TO COL BASE

Sawn treated w/w formwork f. col. base max depth 0.30m

103.14

≈ 103 m^2

FORMWORK TO COL

Sawn treated w/w formwork for side of column 1100 mm

11 m^2

FORMWORK TO EDGES OF SLAB

Sawn threated w/w formwork edges of floor slab to provide smooth finishing not exceeding 225mm

41 m^2

BLOCKWORK

Block in fdn 225x225x450 mm hollow sandcrete block filled with sandcore (1:3) bedded, jointed in cm mortar laid in stretcher bond in fdn

53 m^2

PROPOSED OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLADEJI LOCATED AT -ATAGBA LAYOUT IDO LGA OYO STAT

ABSTRACT SHEET FOR SUB-STRUCTURE WORK.

EXTERNAL RENDERING TO BLOCKWORK

14mm thick C/S monter (1:3) rendered to foundation wall

25 m^2

PAINTING

Apply for coat of texture paint as rendered wall

25 m^2

PROPOSED OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLADELE LOCATED AT ALAGBA LAYOUT IDO L.G.A. OYO STATE.

ABSTRACT SHEET FOR SUPERSTRUCTURE WORK GROUND FLOOR

CONCRETE IN COL.

Reinforced insitu conc. 1:2:4 19mm agg in col 225mm thick filled into formwork and well packed

7.19 m^3

CONCRETE IN BEAM

Reinforced insitu conc. mix 1:2:4 19mm agg in beams running on external girth of the building

4 m^3

REINFT IN BEAM

16mm dia high yield reinft bar in beam

394 kg

REINFT IN COL.

16mm dia high yield reinft bar in col

474 kg

STIRRUP IN COL

10mm high yield reinft bar as stirrup & link to colum

138 kg

STIRRUP IN BEAM

10mm high yield steel reinft bar as stirrup & link to beam

201 kg

FORMWORK TO COL.

Sawn treated soft wood formwork to colum max depth 300mm high ~~field~~ ground floor slab

7.3 m^2

FORMWORK IN BEAM

Sawn treated hard wood formwork to sides and support to beams

37 m^2

CONCRETE IN LINTEL

Reinforced insitu conc. 1:2:4 19mm agg in lintel 225 mm filled into formwork & packed

1:3:6

1 m^3

REINFT IN LINTEL

16mm high tensile reinft in numerical size straight or bent in lintel

195 kg

STIRRUPS IN LINTEL

10mm high yield steel reinft as stirrup & link in lintel

44 kg

FORMWORK TO LINTEL

Sawn treated h/w formwork to the side of lintel

14.0 m^2

BLOCKWORK

450x225x225 hollow sand crete block laid on stretcher bond jointed with c/s mix (1:4)

18 m^2

PROPOSED OFFICE DEVELOPMENT FOR PASTOR SAMUEL OLAD LOCATED AT ALAGBA LAYOUT EDO L.G.A OYO STATE

ABSTRACT SHEET FOR SUPERSTRUCTURE WORK, GROUND FLOOR

DOORS & WINDOWS

DOOR 1

Solid flush panel door with season wood 2100X900 mm

6nr

DOOR 2

Solid flush panel door with season wood 750 mm X 2.100 mm

1 nr

WINDOW1

Aluminium frame & Sliding window 1200 mm X 1500 mm

2nr

WINDOW2

Aluminium frame & Sliding window 1200 mm X 1800

3nr

WINDOW 3

Aluminium frame window 1200mm X 900 mm

11nr

WINDOW 4

Aluminium & sliding window 600X600 mm

4nr

WINDOWS

Aluminium frame & window 1800 mm X 1200 mm

1 nr

WALL FINISHES

EXTERNAL

14 mm thick C/S (1:4) rendering to wall & prepare and apply coat emulsion paint or render wall

84 m²

INTERNAL WALL

16 mm thick C/S rendered to other part of wall exceeding 300 mm thick & prepare and supply two coat emulsion p

245 m²

floor finishing

thick. vetrified floor with cement and screeded bed

48 m²

Ceiling finishing

paint and apply 3coat of emulsion paint to Buff of ceiling

48 m²

PROPOSED OFFICE DEVELOPMENT OF PASTOR SAMUEL OLADELE LOCATED AT ALAGBA LAYOUT IDO L.G.A OYO STATE.

ABSTRACT SHEET FOR SUPPERSTRUCTURE WORK (FIRST FLOOR)

CONCRETE IN SLAB

Reinft conc. insitu mix (1:2:4) 19mm agg. with thickness of 150mm

11m3

CONCRETE IN COLUMN

Reinft insitu concrete 1:2:4 19mm agg in column 225mm thick filled into formwork & well packed

7.16m3

CONCRETE IN BEAM

Reinft insitu conc. mix 1:2:4 19mm agg in beam running on external grid in the building

6m3

REINF'T SLAB

12mm high yield steel, runng in slab, in reinft insitu conc. mix 1:2:4 19mm agg

1082kg

REINF'T IN COL.

16mm at high yield reinft bar in col.

165kg

REINF'T IN BEAM

16mm at high yield reinft to in beam

663kg

STIRRUP IN COL.

10mm high yield steel reinft bar as stirrup to Column.

17kg

STIRRUP IN BEAM

10mm high yield steel reinft bar as stirrup and link to beam.

260kg

FORMWORK TO COLL.

Sawn treated hardwood form work to the side of col.

15m2

FORMWORK IN BEAM

Sawn treated h/w formwork side of the beam.

51m2

FORMWORK TO THE EDGE OF SLAB

Sawn treated hardwood to the edges of slab not exceed 150mm.

45m

FORMWORK TO THE SOFFIT OF THE SLAB

Sawn treated h/w to the soffit of the slab

112m2

PROPOSED OFFICE DEVELOPMENT OF [illegible]
LOCATED ALAGBA LAYOUT IDO L G A OYO STATE.

ABSTRACT SHEET FOR SUPPER STRUCTURE WORK (FIRST FLOOR)

CONCRETE IN LINTEL

Reinf't insitu conc. 1:2:4 19mm agg in lintel 225mm filled into furrows and well packed

0.37

≈ 1 m3

REINF'T IN LINTEL

16mm high tensile reinfort in numerical size straight and bent in lintel

194 kg

STIRRUP IN LINTEL

10mm high yield steel reinf't as stirrup in lintel

74 kg

FORMWORK IN LINTE

Sawn treated h/w formwork to the side of lintel

32 m2

BLOCK WORK

225 x 225 x 450 Hollow sand crete block fitted with solid concrete (1:3) bedded and jointed in c/s mortar laid in stretcher bond in foundation.

m2

DOORS & WINDOWS

DOOR 1

Double leave panelly glased aluminium frame door

1200mm X 2100 mm

1 nr

DOOR 2

Solid flush panel door with Season wood.

750mm X 2100 mm

2 nr

Door 3

Solid flush panel door with Seasoned wood

900mm X 2100mm

Window 1, 2 & 3.

Aluminium glause and slide window

1800mm X 1200 mm

3 nr

1500mm X 1200 mm

3 nr

600mm X 600m

WALL FINISHING (EXT.

14mm thick C/S (1:4) render to wall

1.19 m2

Prepare & apply 2 coats emulsion paint or rendered w

PROPOSED OFFICE DEVELOPMENT OF PASTOR SAMUEL OLABU LOCATED ALAGBA LAYOUT IDO LGA OYO STATE.

ABSTRACT SHEET FOR SUPERSTRUCTURE (FIRST FLOOR)

WALL FINISHING (INT.) 150mm thick C/S rendered to other part of wall exceeding 300mm thick & prepare and apply two coat emulsion paint 205 m²		
FLOOR FINISHING 50 mm thick vetrified floor with cement and sand screeded bed (1:3) 71 m2		
Ceiling finishing 200mm wide high Quality ARMOUR PVC ceiling sheet 71 m2		

PROPOSED OFFICE DEVELOPMENT OF PASTOR SAMUEL OLADELE LOCATED -ILAGBA LAYOUT IBO LGA OYO STATE

ABSTRACT SHEET -FOR ROOF WORK

WALL PLATE

100mm X 50mm hardwood wall plate

40 m

TIE BEAM

100 X 50 mm hard wood

94m

RAFTER

100mm X 50mm Sawn treated hardwood rafter

125 m

STRUCT

100 X 50mm sawn treated hardwood struct

351 m

KING POST

100 mm X 50mm sawn treated hardwood

39 m

PURLINS

75 mm X 50mm sawn treated hardwood purlin

268 m

RIDGE CAP

300mm gauge ridge cap

21 m

FASCIA BOARD

25mm X 300 mm hard wood fasc board

45m

ROOF COVERING

0.55mm thick long-span Alum. roofing sheet to nail to hard wood purlin in accordance with manufacturer catelogue

83 m²

DOGEAD

50mm X 50mm sawn treated hardwood nogging

264 m

7

PROPOSED OFFICE DEVELOPMENT OF PASTOR SAMUEL OLAIDE LOCATED ALAGBA LAYOUT IDO L.G.A OYO STATE

ABSTRACT SHEET FOR STAIR CASE

CONCRETE IN WAIST

Reinforce insitu Conc. mix 1:2:4. 19 mm agg

0.35 m^3

REINFT IN TREAD & RISER

12mm ⌀ bar high tensile in tread & riser

4 kg

REINFT IN WAIST

12 mm ⌀ bar high tensile load in waist

21 kg

FORMWORK IN LANDING

Sawn treated hard wood to the landing

2m

FORMWORK IN SIDE WAIST

Sawn treated formwork to sides of waist

2 m^2

REINFT IN LANDING

12 mm ⌀ bar high tensile

5kg

CONCRETE IN TREAD AND RISER

Reinforce insitu conc. mix 1:2:4 19 mm agg.

0.51 m^3

FORMWORK IN TREAD AND RISER

Sawn treated hard wood to tread and riser

0.05 m^2

CHAPTER FIVE

5.1 SUMMARY

This research was carried out to estimate and budget for a medium scal building for a proposed storey building office development for pastor Samuel Oladele located at alagba layout Ido L.GA oyo state.

It is also designed to show the process of taking off, abstracting and method of meparing bill of quantities.

5.2 CONCLUSION

In conclusion, we observed that estimating for medium scale building project is very important.

i. It gives an itemized list of the component parts of the building with a full description and quantity of each part.
ii. It serve as a guidelines for the contractor.
iii. It provides a basis for a valuation of variable which often occur during the progress of the work.
iv. It enables all contractor tendering for a contract to price on exactly the same information with a minimum of effort.

5.3 RECOMMENDATIONS

From the analysis of the data in chapter four of this project, the following Commendations was be made.

The Quantity Surveyor should provide an estimate during the preliminary stage of the project in order to forecast its likely cost.

ii. It is important not to under estimate and over estimate, proper estimating procedures should be used and the layout of the estimate should be clear and logical.

REFERENCES

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