

DEPARTMENT OF QUANTITY SURVEYING. TAKING-OFF FOR THE PROPOSED MEDIUM SCALE BUILDING.

(A CASE OF STUDY OF TAKING-OFF FOR PROPOSED THREE (3) BEDROOM BUNGALOW FOR OLUBIYO OLUFEMI AT OBAGBAJA ESTATE, ALIARA, ILORIN, ILORIN WEST LOCAL GOVERNMENT AREA, KWARA STATE.

BY

ND/23/QTS/PT/0007 ND/23/QTS/PT/0008 ND/23/QTS/PT/0009 ND/23/QTS/PT/0010

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SUBMITTEDTO

THE DEPARTMENT OF QUANTITY SURVEYING INSTITUTE OF ENVIRONMENTAL STUDIES (IES) KWARA STATE POLYTECHNIC ILORIN, KWARA STATE

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF NATIONAL DIPLOMA (ND) IN DEPARTMENT OF QUANTITY SURVEYING.

JULY,2025.

CERTIFICATION

This is to certify that, SULYMAN ABDULQODIR OLAYINKA, YUSUF ABDULMALIK AYINDE, BABATUNDE ABDULQUDUS BOLAKALE, OLUGBILE SAMAD FOLORUNSHO, OVALA FLORENCE, JIMOH MURITALA ABIODUN, Have successfully completed the practical project work in partial fulfillment and requirement for Award of National Diploma in Quantity Surveying department, Institute of environmental studies, Kwara state polytechnic, Ilorin.

QS.MUSTAPHA LUKMAN	8/08/2025 DATE
Project Supervisor)	
QS.SIDIQ LATEEF	DATE
(HEAD OF DEPARTMENT)	
EXTERNAL EXAMINER	DATE
QS ZAKARI MAHMUD TSARAGI	
STUDENT	DATE

DEDICATION

This project work is dedicated to Almighty God for seeing me through my stay in Kwara State Polytechnic and it also dedicated to my Parents.

ACKNOWLEDGEMENT

My profound gratitude goes to God forgiving me the privilege to complete this course,

and particular my project successfully despite all the obstacles in my path.

My appreciate goes to my parent, and everyone who are in support from one way or the

other.

My appreciation goes to my project supervisor QS MUSTAPHA LUKMAN despite his

tight schedule still found us precious time to go through my taking off sheet and write up,

a big thanks to all our lecturers and non-academic staff may God bless and reward you all

abundantly.

BABATUNDE ABDULQUDUS BOLAKALE

ND/23/QTS/PT/0009

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ABSTRACT

This project focuses on preliminary activities that led to preparation of draft Bill of quantity for proposed three Bedroom Bungalow Building located at Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State. Meanwhile, this is to prepare pre-constructional cost on any proposed project and understanding the process of site investigation and to understand the Construction Company/ industry.

CHAPTER ONE

1.0 BACKGROUND INFORMATION

This project is based on proposed residential development and take-off project residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State, is one of the 36 states in Nigeria, in which Ilorin is the capital. But our project for the proposed residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State.

The design team on consultancy, services headed by the architects, civil engineers, who carry out the design, this process is a planned office works into the requirement of the client. The production of a building in a more economical, quick and orderly manner, other professionals function along side with the architect for the cost implication and preparation of bill of quantities (BOQs).

The expected professional needed at the stage is the quantity Surveyor. His Concern is the economic of all resources Such as labour, plant materials and the financial aspect in order to produce building in the quick and economical manner because many buildings today have not been completed.

1.1 DESCRIPTION OF WORKS

This project consist of construction and erection of the proposed residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State.

The residential development and take off project residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State of about 28.78in length, 10.50 widths.

The construction is formed on reinforced concrete pad foundation and framed structure. The suspended floor is of reinforced concrete slab (150mm thick). The walls are 225mmthick concrete block.

The roofing used is long span aluminum roofing sheet fixed a roofing structure, purchase, Electrical etc.

1.2 AIM AMD OBJECTIVES

The major aim of the study is to estimate and budget for a proposed residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State.

OBJECTIVES

To understand bill operation I.e taking-off process, abstract bill drafting and pricing.

To understand the process of site feasibility report.

To understand the process of given pre - constructed cost of any proposed project.

1.3 SCOPE OF THE PROJECT

The scope of the project is to prepare a draft bill of quantities for a proposed residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State.

However, the limitation may not be accurate as a result of:

A:Inability to conduct proper site investigation

B: Inability to conduct the architect that designs the project.

CHAPTER TWO

SITE REPORT

2.0 TITLE

The proposed building project for proposed residential development for Olubiyo Olufemi , Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State.

2.1 LOCATION

The site is situated at Ilorin West Local Government, The site is a loamy soil type, the site is best described as loamy soil also, the site is sloppy

2.2SITE DESCRIPTION

Nature of the land: the proposed land is of loamy soil in nature with sloppy surface.

This reducing the possibility of increase in construction cost due to strip foundation.

2.3 ACCESSIBILITY

The site is located at Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State: therefore, there is an existing road, which leads to the site.

2.4 AVAILABILITY AND PROXIMITY OF RESOURSES

Proximity means the closeness of materials to the proposed site. The construction resources include the following:

I. PLANT

Also, necessary plant needed for this proposed project is readily available here in llorin township, such plant include, Bulldozer, scraper, electric generator, concrete mixer vibrator Compacting machine etc.

ii. MATERIALS

The white materials necessary for this proposed building project for a proposed residential development for Olubiyo Olufemi, Obagbaja Estate, Aliara, Ilorin., Ilorin West Local Government Area, Kwara State, which is very available in llorin metropolis

However, all the materials needed for the execution of this proposed project is little but removed from the site of work Thus, a reasonable amount is to be set aside for the transportation of materials, which will eventually increase the constructional cost in general.

EXTENET OF PRELIMINARIES REQUIRED

Extent preliminaries have a great effect on construction, such preliminaries are explained below

1. SETTING OUT: In setting out, site clearance is necessary by cutting down for tree and hedges top soil excavation before and making the provision of setting out instrument such as profile pegs, measuring tape etc. before the commencement of site operation.

ELECTRICITY: Provision for electricity is by connecting of wires from the nearby poles in the site. And provision for electrical generator shall there is power failure, generator shall be used. These affect the cost on construction.

TEMPORERY FENCE:Temporary fence should be done to cover and protect the material left and kept onsite.

IV. FIRST AID BOX: This is very important in any construction due to some injury that may occur on site, which might be minor or major injuries before going to the hospital.

V. WATER SUPPLY: Water supply will have to be from Ilorin township possibility with the use of tanker and therewill be need for reservoir tank.

SCALFOLDING: There should be a provision forscaffolding because the projectbuilding. so there will be need for scaffolding duringcommencement of the work.

2.5 DEFINITION OF TERMS

- **1. PROVISIONAL SUM**: Refers to a sum provided for work orfor cost which can not be easily for seen, defined or detailed atthe time the tendering documents are issued.
- **2. PRIME SUM COST:** This refers to a sum provided for work orservices to be executed by a nominated sub-contractor.
- **3. BESMM 4 R:** Describe "Taking off" as the process in whichdimension are scaled or raid from drawings and entered in arecognized form on a specially ruled paper called dimensionpaper.
- 4. **BESMM4 R:-** Define "Tender" formal offer to construct and complete the contract work in accordance with the various contract documents for the tender sum.
- **5BESMM4 R:-** Define "Bill of Quantities" as one that consist of aschedule of items of work to be carried out render the contractwith quantities entered against each item, prepared accordancewith the standard method of measurement of building works.
- 6.**BESMM4 R** opened that "contract drawing depict the detailsand scope of the works to be executed under the contract, theymust be prepared in sufficient detail to enable the contractor tosatisfactory only price the bill of quantities.
- 7. According to Willis's is "budgeting" is a targeted financial statementor document of the cost of a proposed construction project.

CHAPTER THREE

3.0 TAKING OFF PROCESS EXPLAINED

The order of taking-off as described [Seeley 1988] largelyfellows the order of construction to simplify the work and to reduce the risk of items being missed, but it's not necessarily thatadopted in standard method of measurement. The measureditems will then subsequently be solved into bill order which canembrace the work section in standard method of measurement to secure uniformity and assist with a number of skin work sections such as 1.5 (excavating and filling) 1.11[mixing, casting turning insitu zone), 1.14[brick andblock walling].

In a simple building the order of taking off could take fromshown in the following schedule, although it will be appreciated that this may be varied to suit individual preferences and specificlocation.

Section of work copied from [BESMM4R]

- 1. Groundwork and substructure or foundation work up to andincluding damp-proof course (DPC)
- 2. Brick work including face work
- 3. Block work
- 4. Fireplace, dummy breast and stats (where appropriate),
- 5. Floors (solid and suspended)
- 6. Roots (pitched and flat, including covering and rain waterinstallation)
- 7. Windows, including adjustments of-openings
- 8. Doors, including adjustments of openings

9. Fittings and fixtures

10. Stairs

- 11.Finishes(walls, ceiling, and floors)
- 12. External walls including. Roads, path, fence, and graced areas.
- 13. Drainage work.

3.1 WASTE CALCULATION

Except in simple cases dimension should not be calculatedmentally. Not only with the risk of error be reduced if the calculations are written down they will be calculated/checked, butanother person can readily see the origin of the dimension. These preliminary calculations known as "waste calculation" are madeon the right hand side at the description column. They must be written definitely and clearly, and not scribbled as If they were acalculation worked out on scrap paper the term waste are needed for this part of the column might be through simply "useless" but in fact implies a means to an end. Every effort must be made to commit to writing the train of thought of the taken-off. Waste calculation should be limited to these necessary for the clearsetting down of the dimension by the taken off, and should not be the place of squaring.

HOW CERTAIN DIMENSION ARE EVALUATED

	LENGTH
	91.29
	8,050
	6,110
	14251.29
	WIDTH
	25.69

	7,200
	5,700
	12925.69

(Copied from building explained by SEELEY 1988)

3.2 DIMENSION

The dimension on measured from the drawings by the take-off using paper ruled as follow:

1 2 34123	4		

(Derived from will's element of quantity surveying length edition]

The column [No 1 of course normally numbered] has been numbered here for identification. Hence, the column 1 is called the time using and it is used in the multiplication of figure inmeasurement. Column 2 is described as the dimension column inwhich the measurements are set down as taken from the drawings column 3 is the squaring column, in which are set out the calculation volumes, areas, etc of the measurement in column

2. While lastly, the column 4 is the class frication column in whichis written the description of the work to which the dimension applyand on the extreme right hand side of which [know as waste]preliminary calculations and collection are made. There are fiveforms of dimension in understanding the dimension set down bythe taken - off and this include:

1.Cubic measurements

2. Square or superficial measurements

3.Linear measurements

4. Enumerated items

5.Items

(Ref: opined from Willis's element of quantity surveying tenthedition).

3.3 DESCRIPTION

According to BESMM 4 R who quoted that considerablecare and skill are required to frame adequate and yet at the sametime, concise descriptions. This is probably the most difficultaspect of talking off work and one which the student should takegreat pain in master. The wetting of description forms animportant part of editing the bill.

In addition to covering all the matters detailed in the standard method of measurement of building works [Besmm 4 R] the descriptions must include all the information which the estimator will require to build up a realistic price for the item in question where there is doubt in the mind of the estimator as to the full nature and / or of the item being priced, then the description is lacking in some essential features. Description can

91.2	29
	12,000
	13,500
	11,700
	4) 37291.29
	AW = 9322082
99.14	under side of coric 12,1050
1.00	1010
1.01	Excavation, Trendiest width Exceeding

0.30m maximum depth not exceeding

2.00m

3.4 DEDUCTIONS

Where deduction is to made, the description is preceded bydeduct which is often abbreviated deduct When carelessly writtenhas been known to be mistaken for add. It is of course, important tomake quite clear whether a measurement is to be added ordeducted and some surveyors always put the word "Add" for any description immediately following a deduction, others only when a following addition is coupled to the deduction by "& as in the example below. In taking off on traditional paper, it is important that all deduction in a series of coupled description are clearly marked "deduct" all doubt whether any description is an add or deduct the reby being removed. An example of deductions follows:

1.0De	educt					
	2.0	One and	d half block wall face work o	one side		
			&			
	<u>Deduc</u>					

Emulsion plaster general surface

internally

(Written and drawing taken from Willis' element of quantity surveying tenth edition).

3.5: SQUARING

A checked made of the waste calculation and their correct transferto the dimension. The dimension are then calculated or "squared" and where bracketed together are totaled subtracting any dedication that follow immediately. The squares and costs are then checked and ticked (Copied from element of quantity surveying by Willistenth edition).

3.6 ABSTRACTING

In spliting up the building into its constituent parts formeasurements, the taker-off follow a systematic method but therehas to be a repetition of the same group of dimensions there will be terms that will appear in different sections of the bills which is usually divided according to the sections of the SMM (Standard Method of Measurements).

Under the traditional method of processing dimension, thefunction of the abstract was to collect similar items together and toclassify them primarily into the SMM sections and subsequentlyaccording to certain accepted rules of order and arrangement, to putthem in a suitable sequence for writing the bill The abstract wasprepared by coping the description and squared dimension from thetaken-off into abstract paper in a tabulated form as nearly aspracticable in the order of the bills.

The need for an abstract was eliminated by the use of the cutand shuffle system. The principles behind the abstract were retained but the order was affected by noting each item on a separate slip of paper and sorting them into the correct order, as described.

(Copied Willis' element of quantity surveying tenth edition)

3.7 ABSTRACTIONS

Under this traditional method of taking off abstraction can be extensively used to shorten description and individual words.

However, in the case of cut and shuffle taking-off such abbreviationare restricted to solve slip description in the examples that followabbreviation have been kept to a minimum.

A special note might perhaps be made here of theabbreviations "ab" for "as before". Where this is used and mightrefer to more than one item it always refers to the last types of 44.door measures, if there had been several different varieties ofhowever, there is any doubt it is also best to add to the briefdescription sufficient for it to be identified or to say '44mm' door abcol. 146. The reference in the column number being a definite guideother abbreviations also includes;

1. Med	-	Medium
2. Jst	-	Joist
3. It	_	Joint

4. Irreg - Irregular

5. Mo - Moulded

6. Ov'll - Over all

7. O.b - one brick

8. m/ce - Mortice

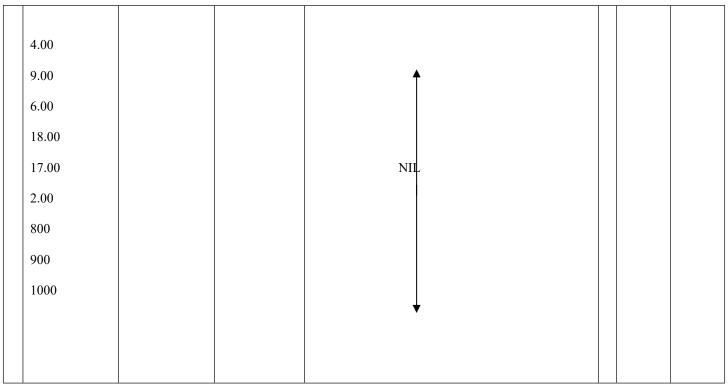
9. A.b.d - as before described

3.8 NILLING

Nilling is simply defined as the method of canceling wrongcalculation or writings during taking-off process. Instead ofcrossing or shouting the calculated or written item "Willis' best in this process, there are three listed areas where Nilling is used is applied in taking off which include;

- i. On waste educations
- ii. On figured dimension
- iii. And on figured descriptions

An example of Niling on a dimension sheet on taking off drawnbelow:



Bill of quantities usually known as the BOQ contains required complete analysis of labour, materials and plants required, contained outlined and defected in the architects and civil engineer drawings and details and accurately representing the work to be executed and obtaining the cost of a proposed project before it is been carried out

PURPOSE/ FUNCTION OF A BILL OF QUANTITY

- I. First and foremost it enables all contractors tendering for acontract to price on exactly the same information.
- II. It limits the risks element borne by the contractor to the ratebut enters the bill and there by results in move realistic andConnective tenders
- III. It prompts the client and design team to finalize most project particular before the bill is prepared and ideally based on full production drawing and project specification
- IV. After being priced it provide a satisfactory basis for thevaluation of various and adjustments to the final account.

V. Priced bills also provide a useful basis for the valuation ofcertified stage payment throughout a contract.

VI. It gives an itemized list of the component point of each part, and could from an approximate checklist for the successfulcontractor in ordering material and components and accessing L.S requirements of labour and other resourceand in progressing the work.

VII. After being priced, it provides a good basis for theepreparation of cost analysis for use in the cost planning offuture projects

3.10 COMPOSITION ANAD PREPARATION OF BILL OFQUANTITIES

According to Willis's the element quantity surveying 1998.which says the traditional preparation of a bill of, quantities divide itself into two distinct stage which are listed as follows:

- 1. The measurement of the dimension and the completion of the descriptions from the drawing and specification. This process is commonly known as taking off.
- 2. the preparation of the bill: this involves the calculation ofvolume, area etc (squaring the dimension) traditionally this, was followed by entering the description and the squareddimension
- 3. on an abstract (abstracting) to (collect descriptions and thesquared dimensions] NILCollect similar items together and present them in a recognized bill order from this abstract that draft was written (billing).

3.11 STAGES IN BILL OF QUANTITIES

There are four distinct stages in the preparation of a bill of quantities that are listed below

- I. Talking- off
- II. Squaring

III. Abstracting

IV. Billing

Conclusively, for a standard and acceptable bill of quantities tobe provided / produced all the above discussions in the chaptermust be carefully dealt with.

3.12 METHOD OF BILL PREPARATION

There is several method of preparing bill but five methods are mentioned and explained her.

And these are:

- I. Activity bill method
- II. Annotated bill method
- III. Cut and shuffle method
- IV. Elemental bill method
- V. Nm operational bill method [derived from iv or H. Seeley[1988]

Means while, in the course of this study the section order wasadopted while the bit was prepared in all elemental forma: thereason is that it's the best order to pricing and making enquiries

Also it is suitable on the cost analysis purpose and post contractarrangement. Lastly is the best understanding for any taker - off

EXPLANATION OF THEMETHODABOVE BILLPREPARATION METHOD

ACTIVITY BILL METHOD: This bill was a development of theoperation form list without the separation of labour and materials. Itwas sub- divided into section based on the activities or operationderived from a network analysis The work was measured inaccordance with the standard method although, on site and off siteactivities were usually separated and special

equipments and components and the work of nominated specialists could be groupedin [section) NIL} separation bills.

[Copied from Seeley 1988 building quantity explained]

ANNOTATED BILL METHOD: it is possible for the bill ofquantities to gives the contractor full details of the quantity typesand quantity of materials and labour. Never the less, there are always some billed items whose location in the works is not readily identifiable and it is most useful to leave a note against them in the bill giving their location. This approach has resulted in the production of annotated bill.

Annotation may be prepared in a separate document from the bill of quantities or they may be bound in at the back of the bill. This provides the clearest and most helpful method.

OPERATION BILL METHOD: This was developing by theebuilding research establishment the 1960's and they sub – divided the work into site done by a distinct from Tracie's or element.

Operation was defined as work done by a man, or by gang of mensome definite stage in the building process. It involved infundamental divergence from a traditional bill, with the separation of labour and materials items and required significant changes in the rules of measurement prescribed in the standard method.

Operational bill were both bulky and costly to produce. Onother hand typing and printing of the bill could be stated at earlierstage and there was a reduction in the amount of editingnecessary (derived from Seeley 1988 building quantities explained).

ELEMENTAL BILL METHOD: This bill method is divided intoappropriate building elements instead of the normal worksections. Hence excavating and filling mixing walling are replacedby such bill headings as substructure, external walls internal wallsand floors. There are benefits to be gained by using RICS buildingcost information services (BICS]Element and sub elements to secure standardization and assistwith planning and cost analysis work.

[Copied from Seeley 1988 building quantities explained].

CUT AND SHUFFLE BILL METHOD: the system was developed in the early 1960's and by the late 1970's was probably one of themost widely used methods of entering dimension and description has been aptly described as a rationalized traditional procedure. Unlike abstracting and building there is no universally accepted format and many different paper rulings and methods of implementations are used in different offices.

The cut and shuffle system is designed eliminate the preparation and checking of the abstract and draft bl Hence there is only one major written operation namely taking off compared with the drawing to illustrate a normal cut and shuffle paper and ruling is below

3.13 RULES OF BILL

The order if billed terms will be the same as in e abstract as far as practicable and they will generally follow the order and terminology item to be price in the bill is referenced by letters and number in first column It will be noticed that all work in the below description are written in full.

Wrought Mahogany

			Starting, picture eails, architects and the like			
		F	25×150 mould: screwed with bass cup and			
			screw:			
			Plugged to mansory	71	m	
		G	Extra over for mittres	16	nr	
		Н	Extra over for ends	12	nr	
		N	25× 20 ditto	22	m	
		K	Extra over for mitres	8	nr	
(Take	n from Seeley	7 199	B building quantities explained			

CHAPTER FIVE

SUMMARY RECOMMENDATION AND CONCLUSION

5.0 SUMMARY

The research was carried out to estimate and budget for a proposed student Hostel project A case study of college Development and take off project residential development for pastor Paul, Ilorin south local govt. area Ilorin kwara state.

5.1 CONCLUSION

Conclusion, we observed that estimating and budgeting for residential development for pastor Paul, Ilorin south local govt. area Ilorin kwara state.

- A. . It enables a basis for the valuation of variations, which often Occur during the progress of the work.
- B. It enables all contractors to tender for a contract to price exactly the same information with a minimum of effort.
- C. It gives an itemized list of the component of the building with a full description and the quantity of each part and this may assist successful contractor in ordering materials and accessing his labour requirement for the contractor.
- D. It serve as a Guideline for any contractors
- E. After items are been priced, it provides a good basis for an analysis which subsequently will be of use on future contract in cost planning work.
- F. Fully described and accurately represent the quantity of the workers to be carried out.

5.2 RECOMMENDATION

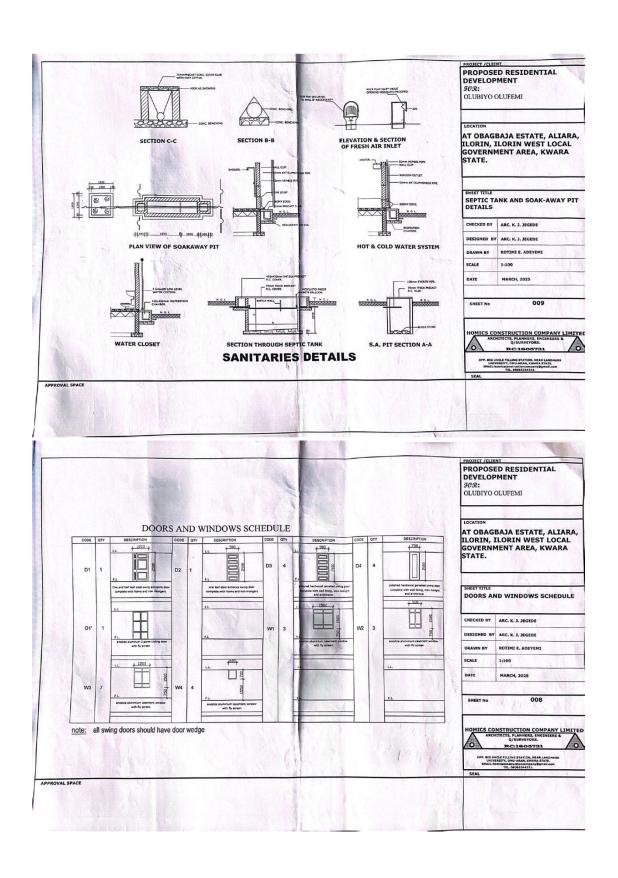
From the analysis of death in chapter of the project, the following recommendation should be made

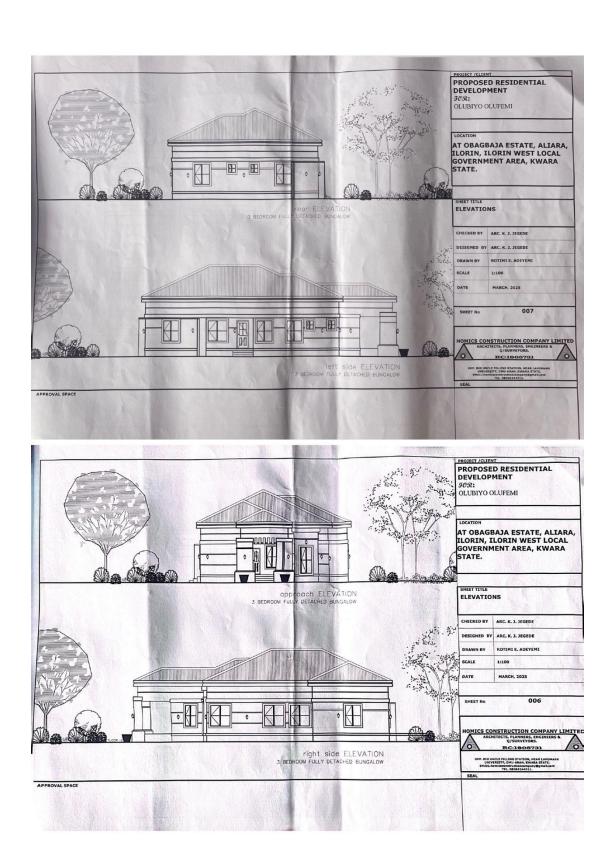
- a. The quantity surveyor should provide an estimate during the preliminary stage of the project in order to forecast it's likely cost
- b. It is important in order not to overestimate, proper estimating procedure should be used and the layout of the estimated should be clear and logical

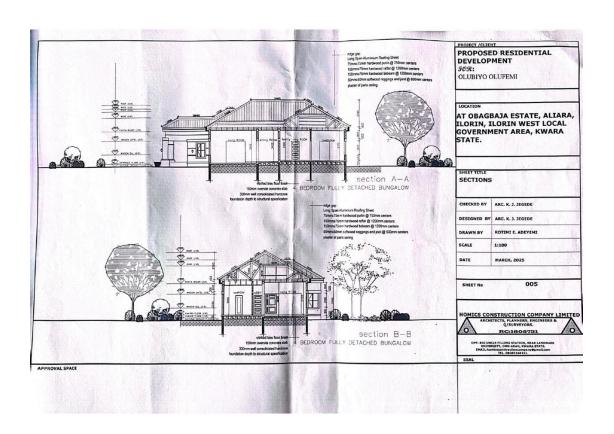
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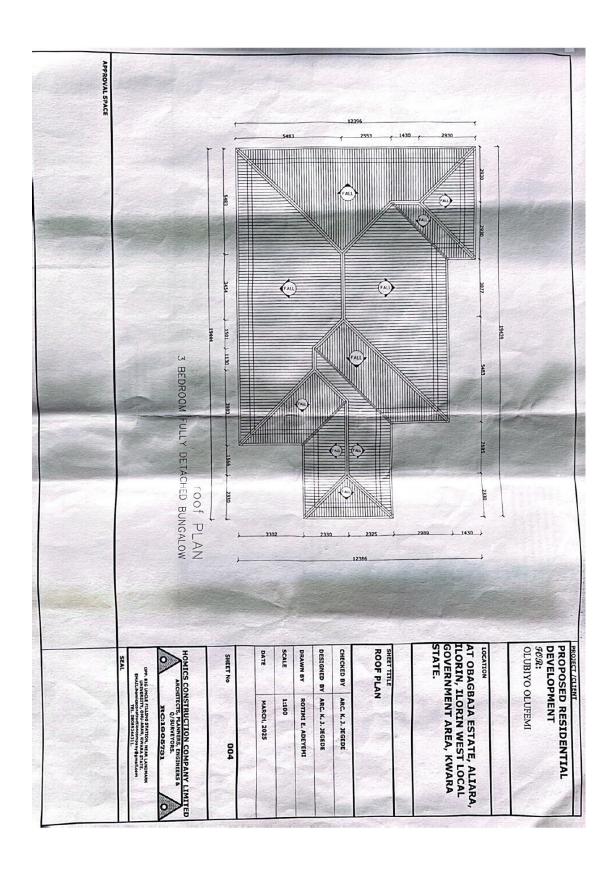
- BASIC ENGINEERING STAND ANAD METHOD OFMEASUREMENT (BESMM3).
- IVOR H. SEELEY (1979 and 1988) FIFTH EDITIONBUILDING QUANTITIES
 EXPLANINED 'printed and boundin great Britain by creative print and Design limited (WalE8)Ebb volt"
- J. WILLIS ELEMENT OF OUANTITY SURVEYING THETENTH ESITION
 "Published by Black wall publishing

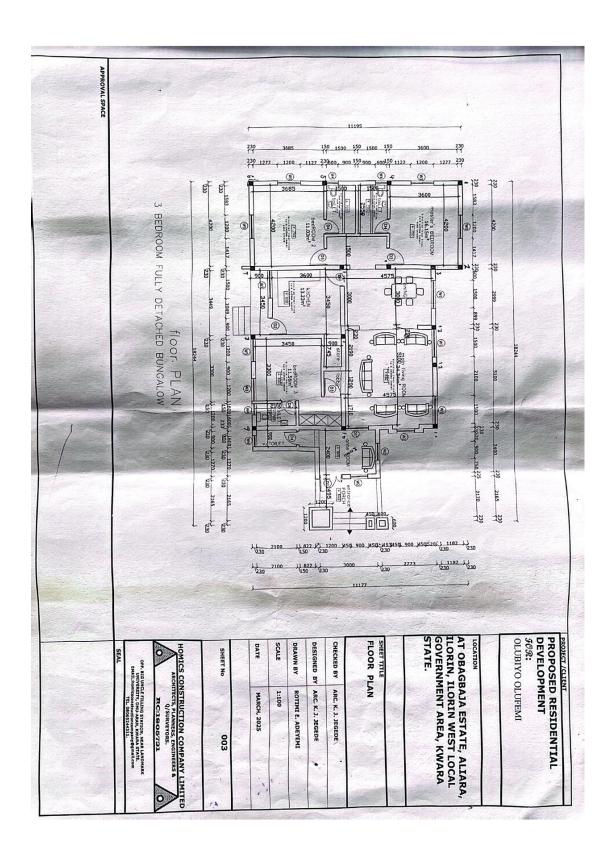
PROPOSED DEVELOPMENT OF RESIDENTIAL BUILDING FOR OLUBIYO OLUFEMI OBAGBAJA ESTATE, ALIARA, ILORIN, ILORIN WEST LOCAL GOVERNMENT AREA, KWARA STATE. ARCHITECTURAL WORKING DRAWINGS HOMICS CONSTRUCTION COMPANY LIMITED MARCH, 2025 ARCHITECTS, PLANNERS, ENGINEERS & Q. SURVEYORS. RC:1805731 OPP. BIG UNCLE FILLING STATION, NEAR LANDMARK UNIVERSITY, OML-ARAN, KWARA STATE. TEL. 08065244311. EMAIL:homicsconstructioncompany@mail.com

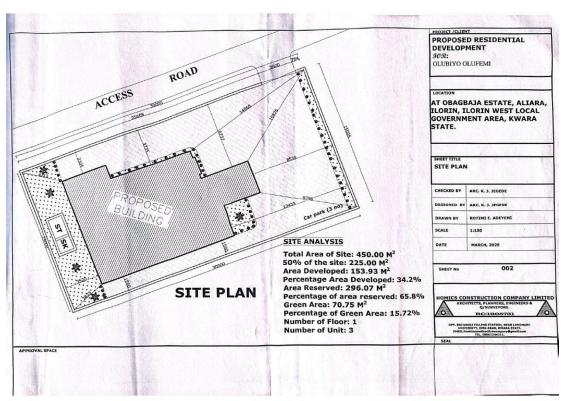


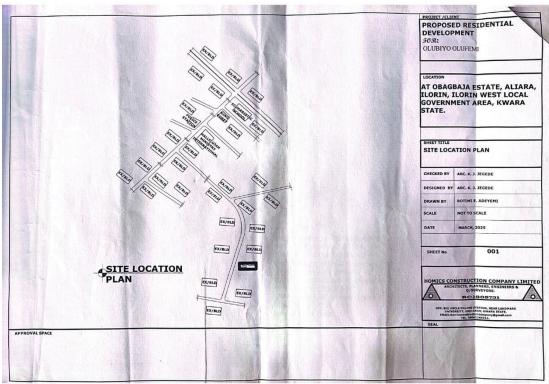












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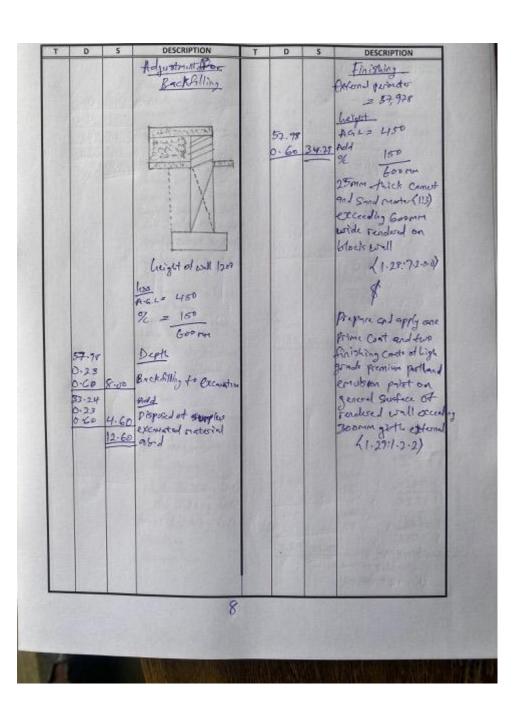
T	D	5	DESCRIPTION		D	5	DESCRIPTION
1 12	5.15	45:45	Dinning 3 000 4 595 2/3,525 15,150				10/800 3 1000 3 1000 4 10 100 M
	14.40	43.20	Master Bedroom 4200 2/7200 14,400		6.00	18.00	Vistors Toilet 2100 900 2/2000 6000 2/Toilet L
	5-77 3-00	47-31	Bedrosm 2 4200 3685 2/3885 15,220	2,	8.10	98-60	2550
	14·16	42-3	Kitchen 3450 3600 2/7050 14100		3.00	19.80	1200
	5.27	The same	54002 900 1745 2/2,648 2/3,290		4-20	12.40	1200 900 2/2100
			14				

D S DESCRIPTION	T	D	5	DESCRIPTION
Internal 33,235				Wall Anishings
	200	I DE		
(ess	10000		1911	external wall
y 3/25 685	13 6	- 00	337	L = 18244
32,540	100	52.87		r = 18/2
	1000	3-00	174.61	W = 11,172
External of Internal	122			
55,248	100	100	1223	2/29,434
			Ross	58,892
32,560	13.55		1303	
87,838	1000		1330	Ditto openings
98-71		1.20	1000	
7-00 264.90 AGL= 450	100	1.20	1-44	BI
88,187	3	The second second	1-10	The same of the sa
80/24	1	1.50	4.50	We
N'tte	1		4.50	
of Differ openings	3	10.90	3773.46	WAS TO THE REAL PROPERTY.
3/150	VIII	1.50	4.05	last 1
1.50 6.71 Wi	7	1.20	15 6	Million Co. Land
3/0.90	186	1.70	12.60	Ws
10.10	1		- 00	
1.50 4.05 W2	1	0.60	100	
7/1.20	200	0.70	1.68	
1.50 12.60 W,	1		94-30	
450.60		1	1	STATE OF THE STATE
0-70 1.69 HY		13.50	-	Internal Hall
1.20		100	1	17.50
2.10 2.52 0	100	18-3		1 H 575
		3.00	54-50	2/9150
\$ 0.90			100	19:30
0.90 1.89 b2		1 3		
4070			100	Bedrooms 3201
2.10 7.5% D3		13.50		and the second
4/0.75		3.0%	40-5	2/6350
2.10 6.30			199	73,50
43-3	4			13/5
7		1993	100	
		100	181	
			17/199	11/2011/2019
	3	1	1	The state of the s
	10			The state of the s
	13			
	100			
		-		The second second second

		No. of the contract of the con	
Stirrup	to little ylane 3/1/092	35.70 WI	
	3/ MA. 91	27-60 N2	
Cust 3/25	\$ 2/30.92	17-28 Ws	
	71072		16.
Add Hy.	10.72	1104 01	
bent 11/10		9-20 Dz	100
		36.80 53 36.80 54	
1), = 28		269.74 × 0.61745	
12+12	ACCURATION AND ADDRESS OF THE PARTY OF THE P	165.20	
1/2 = 201	J2800		
941	Elon		
W3 = 20	12/m	Rost Bear	
	1 = 12nr	Reinforcement Co	nerate
11/4 = 21		(11214) Concrete	In
	= 90r	1.105.1	
		CH-mol 53,92	
101 = 20	19744-01	lateral 33,23	
	=12 nr 0.30	3 corne	
$b_2 = 2a$	U1800 0-23	6.50 94,21:	
9+1	=lonr	17,21.	
D3 = 200	Jiero	Block Work in	
9+1:		Super Struct	100
DH = 201		225mm Hoc	k
		Extend 57,92	9
9+1:	= lon-	Jess Hickory	
low Straight	iell reducement coulse du	Concrete to	
State	A STATE OF THE PARTY OF THE PAR	1×25 2700 55, 278	
11-10	13.2.0.07	24,240	THE RESERVE
	12		Maria San
			Will Street
Not the last of th	T AND REAL PROPERTY.	WILLIAM WATER	-
Wile Wor	The state of the s		

1	D	5	DESCRIPTION	T D	5	DESCRIPTION
			D2	3/2.48		English alles
	1.80		L 2 900		4.97	WI
			Add 900	3/1-80		
	0.23	009	1800	0.69	3-73	1.12
			- 1977 A SALES	2/2.10		NA SEE
		-	53	069	10.14	W3
	4/1880		L = 900	4/1.50		
	0-23		All 2 900	0.69	4.14	W4
	0.23		11/21 / 14/3		The se	
			1800	2.10		DI
	w		B4	100000	1-45	1 2
	41.60	-	1 - 950	1.00	1	A.
	6-23	1	Add 21/20 900		1-24	. 52
- 20	5-23	0.33	Pry 7450 100	4.80		0.5
		270	T450	-	4.97	D3
				41-68		
		19	Form Work to	0.61	455	THE STATE OF THE S
			[Instel		35-17	
		1 8	1 1			
100			2 25.	1000	100	Reinforcement in
	10		3 24			lintel
		17		E 97 10		12 mm Light tensile
			230	133		reinforcement bor in
		1	2/ 190	3/		
23	19/25		3/202690	1 3/2/10	288	a Mi
181			Snow freated formus		21.6	lade
			to sides and suffit of	2/4/0.1.	598	0 1/3
			Untel (1.11715.1.14	× 4/4/1.50	-	5 M4
- //	-		VI-H1/18-1-1-0	1 11.50	100000000000000000000000000000000000000	
		\$ 2.40		9/2.11	200 miles	51
100		0.69		91680		D2 2 D3
	-	-		941.65	2500	
				A. 1. P.	204	· ×08889 181-12
100	100		-			1
23			u			
1						
-5300						
		travite-	WITTEN STREET	West of the		Section of the last of the las

		1 3 3	DESCRIPTION	
THE LOUIS OF STREET	Super Structure	BESSIE	Convete la Column	
	Goode In Column (04)	19	Reinforce laster	
	Concrete in boardised	3.00	Concrete 11214	
	team (m3)	0.23 2.54	exclosing minimum	
	Concrete in root banks	0.23 2.54	The state of the s	
	Form Work	A DESIGNATION	la 28 days	
1 - 9/13	Form Wark to Side of		(1.111512-1.17	
	Column (rt)		XIIII-G -VV	
	form work to side of		Form Work to Sile	
	SUAN (Intel Secon (MP)		THE RESIDENCE OF THE PARTY OF T	-
	Side of routher(m)		of Column	
	Reinforcement Kylhons		230	
	Reinforcement in Coloni		230	
	Kylton		2/460	
	Allaforecensist in linea		920	
	beam kyllin	lc/		
	Relatorteaucit in road	18/3.00	Soun freeted form Work to Side of	
	beam kylton	0-92 44.1	La Column	
	Stirrup/Links ky/4mg		(1.11)1.13.1)	
1000000	Concrete in lintel (M)		A HIGH-BOAY	1120
3 200	Reinforcement in links		Dellare wet to	
	hightens		Reinforcement in	
	Block Lork 23% som		Column	100
1 S 1 S 1 S 1 S 1 S 1	(m2)		Height 3000	3.773
	Door and winder who		(43) 8/2 TO	150
	Finishing		Add 2,950	
	Wall Shirting (my)		3/3/2 288	N.
	Calling Shirming fret)		3228	
	El Com (a)		add 200	
	floor finithly (m)	15%	3538 37 Jamm Lighty girld relation	30/3
	Phinting	3.54 226	56 12 mm light wield regular	,
	Decoration	201-	19 Lar to Column	*
			100-888ks	333113
				13 E 19 1
	9			
				166
7	William or your property	SSW		-
7	Marie Cold Note in		THE PROPERTY OF	



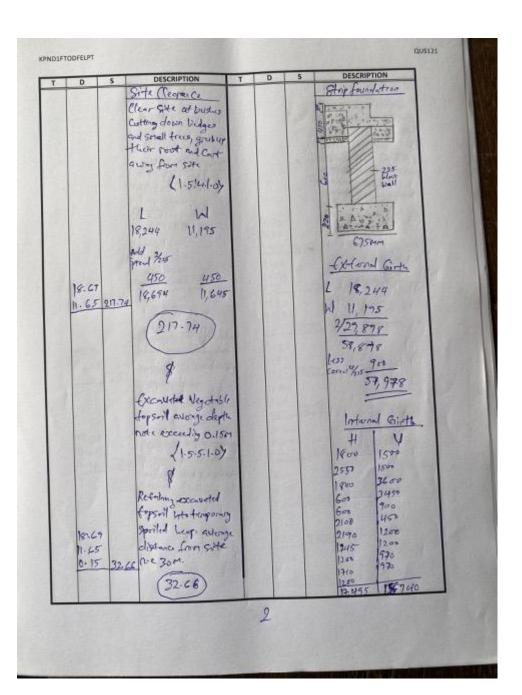
T D S	DESCRIPTION	T D	5	DESCRIPTION
	Base type #			High yield Steel bors
11.	3 4			lammed best in column
40.47 33.08				Ma (12/4)
41.44 5.76	50 600		100	x0.617kg/m
40.69 2.75				237.40 XO.C.17
40.84 3.36	288 998			20.15\$
41.96	50 838			
	7 7			win mish
	Link /garrage	(B)		BRC fabric Square
	Class / Samuel	18-	24	patre prise prius
	77 9	11-2	B 204	solveyeing 2.72kg/mi
				laid as designed in
		100	-	manufectural menual
100 B	10 4			(1.11371)
	Con-GNU 2 25MM			Mansory
	length a 225			Black Work to Sub-
	1032 3/95 50 Com 3/95 50	130		Structure.
	4/175	186		External Gittle 57,97
3 045 4	Vol.	123		Internal Girth = 33,235
RIPK-4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			height = 1580
11 2322 10				1 -0
	No Required			6/6 236
17/14	L= 2800 40 500 3400 12.541			1200
0.7 = 239	40 ben 32/2500 +1	5	7-98	Wibrated hellow Sand
	12.541			Date to Work with Him
	€ 13H = 14.	3	1-24	with Concrete (115/10) 43
	- (31) - (1	23 37	of any Labored to Common ways
			=	morter (11.67 cg) (hid to
				(1.14:1-2.1.1)
				days z. s
	7	_		
AND ASSESSED.	AND THE RESIDENCE	C. House	ALC:	
				COUNTRY WATER AND SO

KPND1FTODFELPT QU\$121 DESCRIPTION DESCRIPTION D Form Work Stales of Column Base Reinforcement 1640.23 10.72 South form work to Sides at Column loss To Celumn bages 1.20 4.50 Sides at Column base 90.60 2.40 A. C. Booms Light 40.60 2.40 24.32 (1.11:31-00) Reinforcement details Edges of oversite bed (leigh & space, paid 2/18.24 36.50 Edges of Lorizantal 2/11.17 22.40 Courst concert Col by the structural Wigh yield steel bos 58:90 ne 500mm Light Width = 150mm 12millation 11-11-14-1-0) Column Gases Base type I Sides of Isolated Colum sides of column 17/0.70 1 225 1.20 20.52 W 225 2/450 1438 6

Concrete b	S.e.			Vertical Work
0.40 0.58 0.60 0.40 0.11 0.60 0.40 0.41 1.17 Concrete P(she Institute	in 2012-54-19 In	0-23 8-23 1-20	1-21	Concrete in Column Depth = 1050 List Willing 150 So Und Goo A-Gal 450 1200 Reinforced Insite Concrete mix (1:2:4- 20magg) Vertical worth exceeding 300mm this In foundation column scinforced (1:11.5:2.1.1)

D	5	DESCRIPTION	T D	S	DESCRIPTION
3.45 2.30 0.15	1-7/	Bedroom3	190-23 0-23 0-05	0.04	CB1
2.40	1.08	Art room	0.05	0.07	CB2
1.20	0-38	Toilut 2	0.45	0.01	CB3
0.98	0.28	Visita Tollet	0.60	0-02	СВН
9.12	0-88	- Enternex		0.14	Coopert in frindstron
18:21	20411	D.P.M. Blythere loosemen high density polythine water practing Membrane exceeding toomen with Insite Concrete what Concrete in building. Plain Insite Concrete what Mix (12418—20 mm 20) 50 mm thick powered on against othe Contre Stenface (1.11.11-2.17)	33.21 0.63 8.23	9.10	Plain laster Concrete Mix (1:3:6-Domeray) 2300methick power son or against knoth Suffer (1.11.1-1-2-1)
		4			

D S DESCRIPTION T	THE RESERVE AND ADDRESS OF THE PERSON NAMED IN COLUMN TWO	
Midth of Execution 3/25 2 675 mm Depth 1,050 Loss 150 Loss 450 Topant 150 300 French Communication from deep (1.5:6.2.17 8 Backfill with moderal 0.30 (3.38 Friggs from execution from final fluckness execution 18.61 Security (1.5,11.2.2)	0.90 1.35 0.15 0.1	Bedroom Bed



KPND1FTODFELPT QU5121

Taking-off for		DESCRIPTION
Guartitus for a frogested Residential building for OLUBINO BLUFFINI Located at Booglan Estate, Atlanta, Marin West beal Court area Kurva State. In accordance fo BESTMUK Hepared by Harre! Matricus. Both ! Taking-off litt Stub-Structure Excavering millifully K site Clearance (m) - side preparation - Topsal Remount (m) Froundation Excaveted topsal (no) *Foundation Excaveted *Foundation Excaveted *Foundation function *Disposal - Excavered metalish - Atrip foundation (m) *Folling - Brick filling (m) - Lart **Imported filling (m) - Lard **Imported filling (m) - Lard **Imported filling (m) - Lard **Landance filling (m) - Lardence filling (m)		* Damp prout Botombron Institu Concrete Work * Concrete in bouldings Concrete in found town * Horizottal Island (al) - Concrete in Column book Concrete in Step bood * Vestical Work - Sides of Column bose * Forme Work - Sides of Column bose * Reinfortement - To Columnibose (A) - Wink (Stirrup) & - Wink (Stirrup) & - Wink (Stirrup) & - Wall - External - Step * Hanswy * Block Work (pe) Wall - External - Step * Wall Anishage * Finishang) * Wall Anishage * External revoluting * Decaration * Painting to general Swiffe.

100					DESCRIPTION
70.5 1-5 42 3.6	0 15.12 5 9.65 7 15.50	Toilet Bedroom 2	3.45 5.10 4.5% 0.70 1.75 1.20 0.70 3.45 3.30 2.40 2.10 1.20 0.70 3.45	11.39 2.20 2.52	Dinning Kitchen Civing Room Store Lobby Belroom? Art room Toilet Visitors Toilet Entrance