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**MATRIC NUMBER: 18/ENG04/025**

**DEPARTMENT: ELECTRICAL/ELECTRONICS  
ENGINEERING**

**COURSE TITLE:ENGINEER IN SOCIETY <  
ENG284>**

**Scope of Work**

**Rehabilitation of Alfa Belgore Building in  
ABUAD, ADO EKITI**

#### **Introduction:**

Alfa Belgore hall is located in the ado ekiti, ABUAD, center of Academic area, located in 12°29'6.02"E

and 32°47'28.86"N.

the hall has been operational for 10years and over this time the building has become warn out due to natural causes and the building can no longer meet the academic requirements it is needed of such as holding the full capacity of the students and staff

This hall is a bungalow styled building and consists of an open space with toilets, storage rooms , back rooms, and

Two exits on total roofing area of the building about 1000 m2, ground floor building.

#### **Required work:**

The Alfa belgore building rehabilitation work requires mainly cast new reinforced concrete as shelter, addition of extra floor(s),increased width of the building ,repair walls/structures elements plastering, broken windows with classes, doors broken, repainting the

walls, all these provisions are indicated as detailed in the draft BOQ.

#### **Key assumptions:**

1. For the rehabilitation project of the alfa belgore hall ,it is assumed that all materials that would be needed to complete the job would the provided by the owner of the project (afe babalola).
2. Also a 20% mobilization fee would be paid before any work would be done concerning the project and 60% would be paid upon completion ,six months after completion if everything remains as agreed the remaining 10% would be paid
3. This scope assumes CDOT will lead the development and execution of all Intergovernmental Agreements and Third party agreements. The Consultant will assist in these efforts as directed by CDOT Project Manager.

#### **Contractors responsibility:**

The contractor would be responsible for all forms of work that is carrying out within the designated area.

**1. security>**

- parameter (fence) creation around the building

**2. site clearance>**

- removal of doors
- removal of windows
- removal of useful objects. E.g chairs ,tables ,curtains, sound systems etc
- removal of electrical fixtures . e.g switches, fans, lightning points etc
- removal of mechanical ductwork
- removal of plumbing fixtures .e.g drains, piping , WC

**3. demolition>**

- zinc removal
- removal
- roof removal

**4. labor>**

- cement mixing
- brick laying
- scaffold setting

**5. architectural review>**

- civil engineers review architects plans
- measurements
- plans approval

**construction>**

- marking out
- brick laying
  - roofing

**6. building overall wiring >**

- outlet provisions

**7. plastering >**

**8. initial plumbing>**

- pipe laying

- **water flow systems**

**installments >**

- gallery balcony railings
- doors installations
- windows installation
- tills for the floors

**1. finishing plumbing workings>**

- sinks
- water closets

**1. electrical installments>**

- **Switches**
- **Fans**
- **Lights**

**2. Painting >**

**3. Final clean up>**

**Owners responsibility**

- Architectural drawings provision
- Working materials provision
- Routine supervision to ensure proper progression

**Schedules**

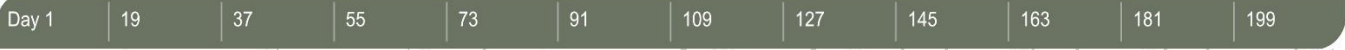
The project began officially on the 3<sup>rd</sup> of January 2020 and is estimated to continue until the 3<sup>rd</sup> of August 2020. Within this time all regular holidays would be observed also the personal breaks would be given to the workers

All this information would be better illustrated by the ganttchart which would be attached to the document

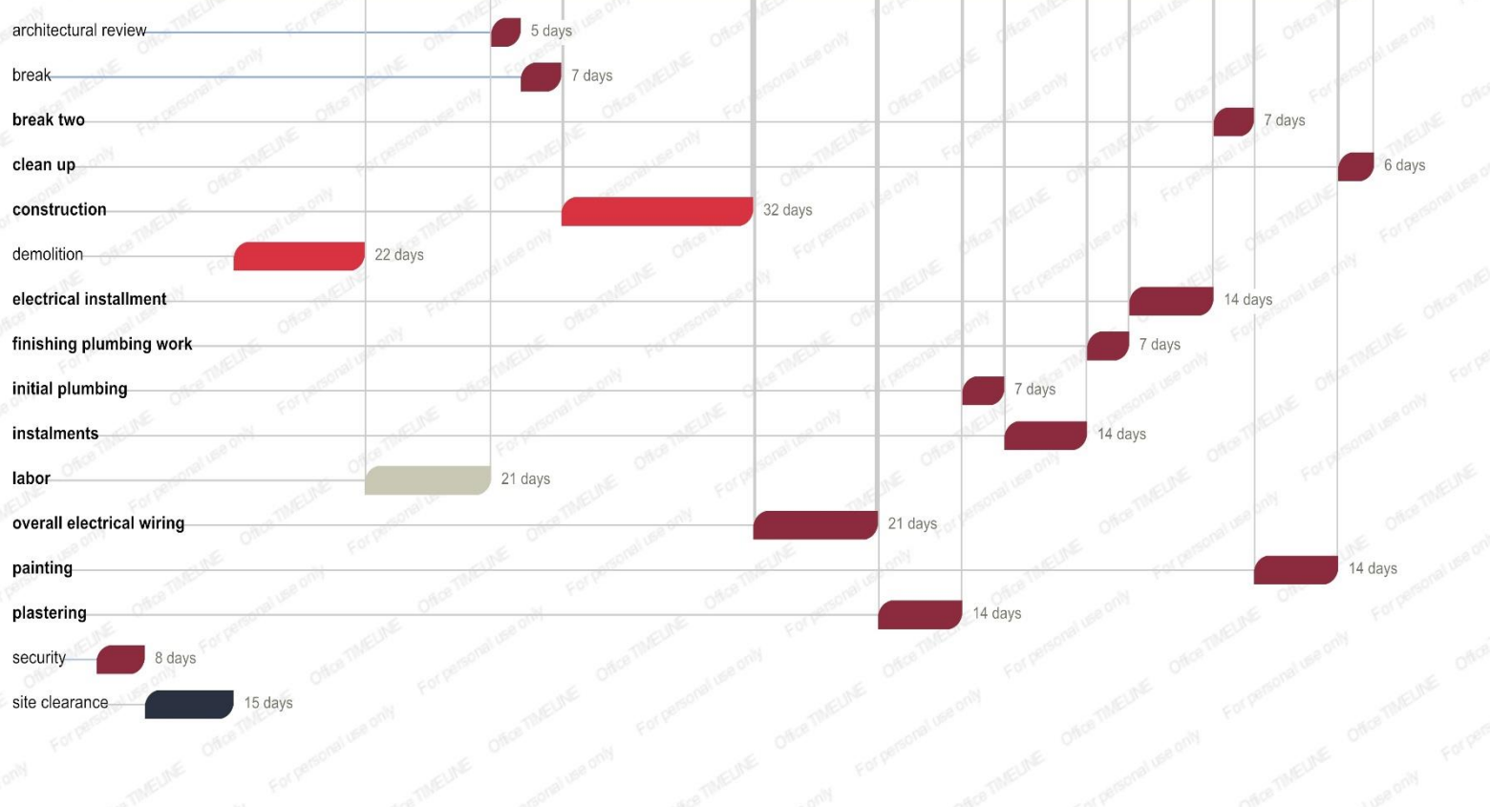
## **Question 2#**

Title	Start date	End date	Duration (in % days)	Complete	Assignee name
construction	03/21/2020	04/21/2020	32	22	wisdom chima
overall electrical wiring	04/22/2020	05/12/2020	21	15	melvin amadi
labor	02/17/2020	03/08/2020	21	15	faith
demolition	01/26/2020	02/16/2020	22	15	wilson
painting	07/15/2020	07/28/2020	14	10	williams
electrical installment	06/24/2020	07/07/2020	14	10	queen
instalments	06/03/2020	06/16/2020	14	10	bright
plastering	05/13/2020	05/26/2020	14	43	favour
site clearance	01/11/2020	01/25/2020	15	40	david
security	01/03/2020	01/10/2020	8	6	francis
break two	07/08/2020	07/14/2020	7	50	amaka
finishing plumbing work	06/17/2020	06/23/2020	7	0	sonia
initial plumbing	05/27/2020	06/02/2020	7	0	presious
break	03/14/2020	03/20/2020	7	0	alid
architectural review	03/09/2020	03/13/2020	5	0	drake
clean up	07/29/2020	08/03/2020	6	0	Eminem

2020



2020

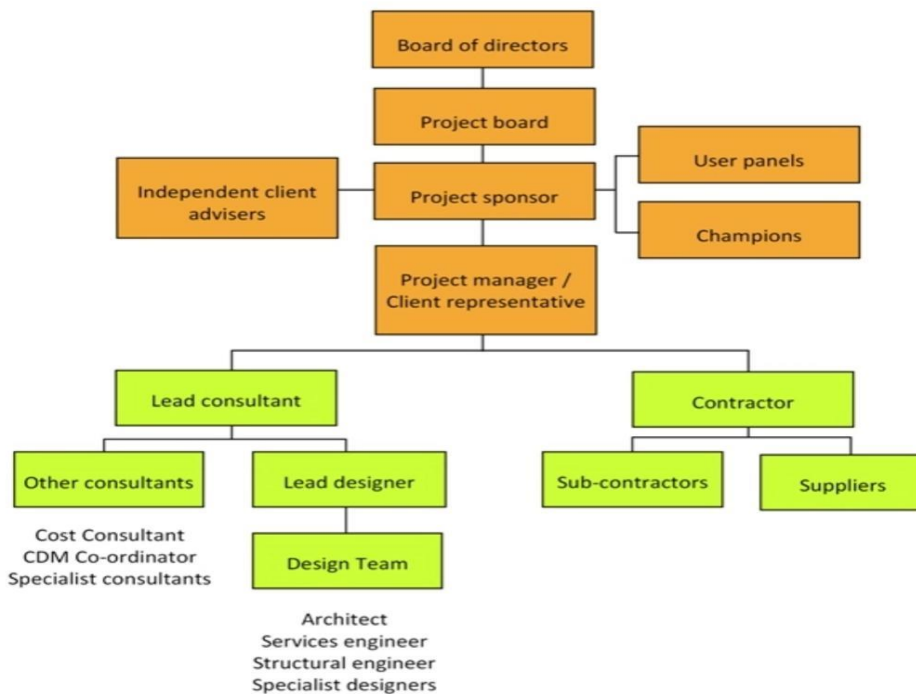


# Question 3#

Human resources required for the project

- Architect
- Civil & Electrical Engineer
- Surveyor
- Draftsperson
- Builders & Artisans
- Certifier
- Carpenters
- Painters
- Plasterers
- Plumber
- Roof Tiller

**Lead Consultant:** Chima wisdom enyiche



the role of [lead consultant](#) involves additional [services](#), beyond those that might be expected from a [consultant](#) that is not [appointed](#) as [lead consultant](#), it is important that it is discussed with [consultants](#) before they are [appointed](#) and their [scope of services](#) and [fee](#) agreed. The [client](#) cannot assume that these [services](#) will be carried out within the agreed [fee](#) unless the role of [lead consultant](#) has been allocated.

The [lead consultant](#) will often be the [architect](#), however this is not necessarily the case and [appointment documents](#) for other [consultants](#) will generally offer provision for them to be [nominated lead consultant](#).

## **Question 4#**

### **Why are sites secured**

**Each construction site will have its own particular security issue depending on the nature, size and location of the project, as well as the amount of time the project takes as well, but broadly speaking there are three types of threats to construction sites**

- **Threat of property and asset**
- **Threat to operation**
- **Threats to life**

Criminal activity as a result of unauthorised entry into a construction site presents several overall threats:

- To operations, including ongoing works and schedules, disruption to which costs millions each year.
- To property and materials – including buildings and outbuildings, structures under construction or demolition, as well as construction materials, tools, equipment, plant, fuel and petty theft of workers' possessions and assets.



- To life, including trespassers causing damage which has the potential to injure, maim or kill, such as ripping out fixtures and leaving wiring unsafe, as well as deliberate actions such as arson which threaten life as well as property

**Question 5#**

**BEME**

S/N	description	elements	percentage of cost	amount(naira)
1	miscellaneous	glass craftmen plastic	10%	1,500,000
2	consultancy fee	lead consultant specialist consultant cost consultant design team	15%	2,250,000
3	site preperation and cleaning after completion	cleaners lumbers washers movers	5%	750000
4	transportation	materials transportatio personel transportation	12%	1,800,000
5	profit		20%	3000000
6	other payments		38%	5,700,000
				total=15000000

## Question 5#

### Payment schedule

S/N	payment description	percentage alocated	amount(naira)
1	mobilization	30%	1500000
2	completion	30-50%	2000000
3	final payment at and hand over	40%	2000000
4	retention for 6 m onths defect liability period	10%	1000000

## **Question 6#**

### **1. What is BEME?**

Bill of **Engineering** Measurement and Evaluation (**BEME**) also referred to as 'Bill'; is a tool used before, during and post-construction to assess and value the cost of construction works. This includes the cost of materials, labor, equipment and all/any other resource(s) required for the success of.

### **2. What is defect liability period?**

A **defects liability period** is a **period** of time following practical completion during which a contractor remains **liable** under the building contract for dealing with any **defects** which become apparent. ... A **defects liability period** is usually a **period** of around six or 12 months but it can vary depending on the contract used.

### **3. What is lead consultant?**

The **lead consultant** is the **consultant** that directs the work of the **consultant** team and is the main point of contact for communication between the client and the **consultant** team, except for on significant design issues where the **lead** designer may become the main point of contact.

### **4. What is project life cycle ?**

A standard **project** typically has the following four major phases (each with its own agenda of tasks and issues): initiation, planning, implementation, and closure. Taken together, these phases represent the path a **project** takes from the beginning to its end and are generally referred to as the **project "life cycle."**

### **5. What is environmental impact assessment (EIA)?**

Environmental assessment is the assessment of the environmental consequences of a plan, policy, program, or actual projects prior to the decision to move forward with the proposed action.