**NAME: OLOGUNAGBA BRIGHT TOLUWALOPE**

**MATRIC NUMBER: 18/ENG04/062**

**DEPARTMENT: ELECTRICAL AND ELECTRONICS**

**COURSE TITLE: ENGINEERING IN SOCIETY**

**COURSE CODE: ENG 284**

**ALPA BELGORE REHABILITATION PROJECT**

As a designated Student Consulting Engineer the scope of work includes

1. Demolishing, dismantling and preparation Works
2. Concrete, block and plastering works
3. Painting and Coating works
4. Doors, windows and Metal Works
5. Plumbing and Sanitary works
6. Electrical works
7. Air conditioning Works

THE PREPARATION

This is the stage where valuable things from the building will be evacuated. The building would be cleared and all the furniture would be taken out and moved to a secured and safe place. The ICT and the Bookshop would be located to another site temporarily, so they can continue to carry out their activities while their permanent site would still be under construction. The clearing stage should take about 10 days. This stage also includes the dismantling of electrical wiring e.g. the Air conditioners etc. And demolishing the building to prepare for the work.

SECURING THE SITE

At this stage a roofing sheets would be used to secure the site so as to ensure no one would be able to enter the site. This would limit the movement of students and staff into the site in order to prevent accident and also secure the equipment that will be used during the remodelling work. This should take about 2 weeks to complete.

REMODELLING

This is the stage when the main project begins. Where the coupling of the building starts. This involves the concrete, block and plastering works, the painting and coating works, the doors, windows, metal works, the plumbing, the sanitary works, the electrical works and air conditioning work takes place. This should take about 2 to 3 Months to complete.

CLEANING AND ARRANGEMENT

This is the final stage of the project, where the equipment used during the course of the building are returned and the equipment and valuables taken from the building would be returned. This should take about 2 weeks to complete.

**GNATT CHART**

HUMAN RESOURCES NEEDED

* **Demolishers**: They are set of people involved in dismantling buildings and other structures using pre-planned and controlled methods. Their work often combines the structural demolition of load bearing elements with stripping of internal fixtures and fittings, services and non-load bearing elements.

Demolition work must Consider risks to both people and property.

* **Electricians:** The Electricians are tradesmen specializing in dismantling and installation of electrical wiring of the building, transmission lines, stationary machines and related equipment.
* **Carpenters:** Carpenters construct and repair building frameworks and structures such as doorframes, partitions and rafters made from wood and other materials. They install structures such as windows and doors.
* **Plumbers:** A plumber is a tradesperson who specializes in installing and maintaining systems used for portable(drinking) water, Sewage and drainage in plumbing systems.
* **Painters:** A painter prepare, protect and decorate interior and exterior surfaces by applying materials such as paints, wallpaper and other finishes and special coatings.

Other human resources needed are the:

1. An Architect needed to draw the new plan of the building.
2. A Quantity Surveyor that will help in estimating the cost of everything required.
3. A Civil Engineer that will ensure the foundation of the building its deep enough to carry the new building.

The Lead consultant is Professor Wara Samuel.

**REASON WHY THE SITE WAS SECUREDP**

The site was secured to limit the number of unauthorised people that have access to the site when work is going on, to reduce accidents and help to protect the equipment been used at the course of the remodelling.

BILL OF ENGINEERING MEASUREMENT AND EVALUATION (BEME) for Alfa Belgore Rehabilitation Project

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| --- | --- |
|  | ₦ |
| Lump Sum for the project | 500,000,000 |
| Miscellaneous (10%) | 50,000,000 |
| Consultancy fee(15%) | 75,000,000 |
| Site Preparation and Clearing after Completion(5%) | 25,000,000 |
| Transport cost(12%) | 60,000,000 |
| Profit(20%) | 100,000,000 |
| **Total** | **₦ 810,000,000** |

**PAYMENT SCHEDULE**

* 30% of Total Estimated Cost of Mobilisation
* 30% of Total Estimated Cost
* 50% of Total Estimated cost for completion
* Finally, payment of 40% of Total Estimated cost at completion and hand over
* Retain 10% of Total Estimated cost for a 6nMonths defeat liability period.

**Bill of Engineering Measurement and Evaluation (BEME)**

Bill of Engineering Measurement and Evaluation (BEME) also referred to as 'Bill'; is a tool used before, during and0 post-construction to assess and value the cost of construction works. This includes the cost of materials, labour, equipment and all/any other resource(s) required for the success of any construction endeavour.

**Defect Liability Period**

The defects liability period (or 'DLP') is a fixed period of time, starting from the date of practical completion, during which the remains liable under the building contact fro dealing with any defeats which became apparent. It is also referred to as a ‘’rectification period or defects correction period’’. It is usually a period of 6 or 12 months.

**Lead Consultant**

The [lead consultant](https://www.designingbuildings.co.uk/wiki/Lead_consultant) is the [consultant](https://www.designingbuildings.co.uk/wiki/Consultants) that directs the [work](https://www.designingbuildings.co.uk/wiki/Works) of the [consultant team](https://www.designingbuildings.co.uk/wiki/Consultant_team) and is the main [point](https://www.designingbuildings.co.uk/wiki/Points) of contact for communication between the [client](https://www.designingbuildings.co.uk/wiki/Clients) and the [consultant team](https://www.designingbuildings.co.uk/wiki/Consultant_team), except for on significant [design](https://www.designingbuildings.co.uk/wiki/Design) issues where the [lead designer](https://www.designingbuildings.co.uk/wiki/Lead_designer) may become the main [point](https://www.designingbuildings.co.uk/wiki/Points) of contact.

**Project Life Cycle**

A project life cycle is the sequence of phases that a project goes through from its initiation to its closure. The number and sequence of the cycle are determined by the management and various other factors. The phases have a definite start, end, and control point and are constrained by time. The project lifecycle can be defined and modified as per the needs and aspects of the organization. Even though every project has a definite start and end, the particular objectives, deliverables, and activities vary widely. The lifecycle provides the basic foundation of the actions that has to be performed in the project, irrespective of the specific work involved.

**Environment Impact Assessment (EIA)**

The term "environmental impact assessment" (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human health impacts both beneficial and adverse. It usually used when applied to actual projects by individuals or companies and the term "[strategic environmental assessment](https://en.wikipedia.org/wiki/Strategic_environmental_assessment)" (SEA) applies to policies, plans and programmes most often proposed by organs of state .It is a tool of environmental management forming a part of project approval and decision-making.