**PROJECT: ALFA BELGORE REHABILITATION**

**BY**

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**MATRIC NO: 18/ENG03/022**

**AFE BABALOLA UNIVERSITY EKITI**

**DEPARTMENT OF CIVIL ENGINEERING**

**COURSE TITLE: ENGINNERING IN SOCIETY**

**COURSE CODE: ENG 284**

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REHABILITATION AND EXPANSION OF ALFA BELGORE FROM A FLAT TO A ONE STOREY BUILDING

Alfa Belgore Hall requires rehabilitation and expansion to meet the staff and students population. In view of this the proposal expands vertically (one floor) for supportive facilities such as offices, books and storages

**SCOPE OF WORK**

* SITE CLEARANCE
* Removal of Defected/Unwanted Areas

1. Walls
2. Plastering
3. Plumbing and electrical works
4. Tiles
5. Doors & window
6. Ceiling & roof

* RECONSTUCTION
* Additional walls
* Replacement of defective walls
* ADDITIONAL CONSTRUCTION
* Introduction of columns
  1. Excavate column position
  2. Construct column to floor level
  3. Extension of ground floor
* Construction of first floor stair case walls and lintel
* PLUMBING AND ELECTRICAL INSTALLMENT
* PLASTERING ,FLOORING &CEILING
* PAINTING
* FURNISHING & GENERAL CLEARING
* EXTERNAL WORKS
* Pavement &walkways
* Decorations (Trees, flowers, grass)
* HAND OVER
* LIABILITY DEFECTIVE PERIOD (6-12 MONTHS)

GANTT CHART

**HUMAN RESOURCES NEEDED**

1. Demolition work
2. Laborers
3. Waterproofing system provision
4. Plastering works
5. Painting works
6. Mason works
7. Carpentry
8. Plumbing
9. Electricians
10. Watchmen(day &night)
11. Foremen
12. Iron benders

**PROJECT TEAM**

1. Lead Consultant- Architect
2. Contractors
3. Public relations
4. Clerk workers( Laborers, plumbers, carpenters etc)
5. Engineers

* Mechanical
* Electrical
* Structural
* Civil

**EXPLANATION FOR SECURING A SITE**

A construction site is a hazardous land based job, which involves many hazardous task and conditions such as working with height, excavation, noise, dust, heavy machinery and tools. This tends to numerous accidents (falling, getting struck by an equipment, electrocution, and various cuts and bruises) occurring if the site is not secured from public access until completion.

With the increase in birth rate and the advancement of technology construction is required very often and thus the increase in fatality if this is not dealt with early. Within the field of construction it is vital to have a safe site in order to reduce risk of fatal accidents.

It also helps to reduce any potential crime from occurring since it keeps out trespassers but the requirement of a watchman and a CCTV tech may be relevant

**BEME OF THE PROJECT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/N** | **DESCRIPTION** | **QUANTITY** | **UNIT PRICE (NAIRA)** | **COST (NAIRA)** |
| **1** | **DEMOLITION** | **---** | **---** | **200000** |
| **2** | **LABORER** | **30** | **4000** | **120000** |
| **3** | **WATER PROOFING** | **---** | **---** | **275000** |
| **4** | **PLASTERING** | **---** | **---** | **56000** |
| **5** | **PAINTING** | **70** | **5500** | **385000** |
| **6** | **MASON** | **15** | **7500** | **112500** |
| **7** | **CARPENTERY** | **10** | **17000** | **170000** |
| **8** | **PLUMBING** | **6** | **12000** | **72000** |
| **9** | **ELECTRICIANS** | **5** | **20000** | **100000** |
| **10** | **WATCHMEN** | **3** | **6500** | **19500** |
| **11** | **FOREMEN** | **2** | **16500** | **33000** |
| **12** | **IRON BENDERS** | **8** | **9500** | **76000** |
| **13** | **ESTIMATED COST(EC)** |  |  | **1619000** |
|  |  |  |  |  |
| **14** | **MISCELLANEOUS(10% EC)** |  |  | **161900** |
| **15** | **CONSULTANCY FEE(15% EC)** |  |  | **242850** |
| **16** | **SITE PREPARATION AND CLEARING**  **(5% EC)** |  |  | **80950** |
| **17** | **TRANSPORT COST(12% EC)** |  |  | **194280** |
| **18** | **PROFIT**  **(20% EC)** |  |  | **323800** |
| **19** | **TOTAL** |  |  | **2624780** |

**PAYMENT SCHEDULE**

|  |  |  |
| --- | --- | --- |
| **PAYMENT** | **TOTAL PAYEMENT** | **BALANCE** |
| **ESTIMATED COST (EC)** |  | **1,619,000** |
| **MOBILIZATION**  **(30% EC)** | **485,700** | **1,295,200** |
| **50% COMPLETION**  **(30% EC)** | **485,700** | **971,400** |
| **COMPLETION**  **(40% EC)** | **647,600** | **485700** |
| **6-12 MONTHS**  **LIABITIY PERIOD**  **(10% OF 100% EC)** | **161,900** |  |

**BEME**

Bill of Engineering Management and Evaluation also known as ‘Bill’ is a tool used before, during and post construction to assess and value the cost of the construction work.

**DEFECT LIABILITY PERIOD**

The defect liability period is a fixed period of time starting from the date of practical completion during which the contractor has an express contractual right to return to the site to verify defects.

**LEAD CONSULTANT**

The lead consultant is the person who directs the work of the consulting team, and is the main point for communication between the client and other consulting team, this is mostly the architect.

**PROJECT LIFE CYCLE**

A project life cycle is the sequences of phases that the 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 like needs of the organization involved in the project, nature of the project, and it area of application.

**ENVIRONMENTAL IMPACT ASSESSMENT**

Environmental impact assessment is defined as an activity to identify the impact of the bio geophysical environment, on man and well-being of legislative proposals, projects, policies, operational procedures and to interpret and communicate information.it also identifies future consequences of a current proposed action.