NAME: UDONSI VICTOR

MATRIC NO: 18/ENG07/014

DEPARTMENT: PETROLEUM ENGINEERING

COURSE: ENGINEER IN SOCIETY (ENG 284)

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INTRODUCTION

Since the Alfa Belgore Rehabilitation project is geared towards providing more sitting space for the institution, it is assumed that this project is an extension, i.e, built above the existing floor. Let us assume 1 floor is extended above.

1. SCOPE OF WORKS
2. Demolition of existing Parapet and Columns above the existing terrace.
3. Column Reinforcement
4. Column Shuttering
5. Column Concreting
6. Slab and Beam Shuttering
7. Slab and Beam Reinforcement
8. Electrical Conduiting works on the slab
9. Slab Concreting
10. Brick/Block Masonry
11. Plastering-Internal
12. Plastering-External
13. Parapet Masonry works
14. Flooring-Tiles/Granite
15. Doors and window Installation
16. Painting
17. Plumbing and Electrical works
18. Finishing works
19. GANTTS CHART
20. HUMAN RESOURCES NEEDED
Following are the Human Resources needed for the project.
21. Architects
22. Structural Engineer
23. Consultant
24. Project Manager
25. Project Engineer
26. Site Engineer
27. Site Supervisor
28. Foreman
29. Laborers

Lead Consultant is the main person who coordinates with all the agencies ( Client, Contractor, Architect and Structural Engineer) from the beginning to the completion of the work.

1. REASON FOR THE SITE BEING COMPLETELY SECURED

The site is completely secured because as lots of materials will be stocked inside the site while construction is ongoing, otherwise those materials are vulnerable to theft.

1. Let us consider the total cost estimated as ₦15000000, BEME is as follows

|  |  |  |  |
| --- | --- | --- | --- |
| S/NO | Description | Percentage | Amount (₦) |
| 1 | Miscellaneous | 10% | 1500000 |
| 2 | Consultancy | 15% | 2250000 |
| 3 | Site Clearing | 5% | 750000 |
| 4 | Transport | 12% | 1800000 |
| 5 | Profit | 20% | 3000000 |
|  | Structural Work | 13% | 1950000 |
|  | Masonry Work | 10% | 1500000 |
|  | Finishing | 15% | 2250000 |
|  |  |  | 15000000 |

1. Payment Schedule is as follows

|  |  |  |
| --- | --- | --- |
| Bill no-1 |  |  |
| S/No | Description | Amount (₦) |
| 1 | Mobilization- 30% of the contract value | 4500000 |
| 2 | Retention to be deducted- 10% of the billed amount | 450000 |
|  | Net Amount | 4050000 |

|  |  |  |
| --- | --- | --- |
| Bill no-2 |  |  |
| S/No | Description | Amount (₦) |
| 1 | Work Completion 50%- 30% of the contract value | 4500000 |
| 2 | Retention to be deducted- 10% of the billed amount | 450000 |
|  | Net Amount | 4050000 |

|  |  |  |
| --- | --- | --- |
| Bill no-3 |  |  |
| S/No | Description | Amount (₦) |
| 1 | Final Payment- 40% of the contract value | 6000000 |
| 2 | Retention to be deducted- 10% of the billed amount | 600000 |
|  |  | 5400000 |

1. BEME

BEME means Bill of Engineering Measurements and Evaluation. It is one of the important documents prepared before starting the work to fix the budget and track the cost.

Defect Liability Period

It is the agreed period between the Client and the Contractor during which the Contractor is liable to pay any defects/maintenance fee.

Lead Consultant

Lead Consultant is the main person who coordinates with all the agencies (Client, Contractor, Architect, Structural Engineer) from the beginning till the completion of the work.

Project Life Cycle

The Project life cycle means the duration or phase from the beginning to completion. This includes the phases of initiation, planning, execution and completion.

Environmental Impact Assessment (EIA)

It means the assessment done in terms of environmental consequences of a particular project before starting the project.