

NAME: ALFA FATIMA AHMED

MATRIC NUMBER: 18/ENG06/008

DEPARTMENT: CHEMICAL ENGINEERING

COURSE NAME: ENGINEER IN SOCIETY

1. SCOPE OF WORK IN ORDER OF OCCURRENCE

• INTERIOR

- Patch all walls and trim in preparation for paint.
- Fix and replace all outlets/covers as necessary (ensure matching colors and styles)
- Fix and replace all switches/switch-plate covers necessary
- Clean/scrape all windows and ensure proper operation. Replace nonfunctional windows.
- Replace flooring with ceramic tile and level floor where necessary.
- Installation of overhead air-conditioning vents.
- Replace bathroom flooring and all damaged WCs

• EXTERIOR

- Replace all entry doors with automatic doors
- Replace all roofing sheets
- Expansion of underground septic ground for waste disposal
- Take out all old paving stones, level ground and lay new ones.
- Clearing of site

2. PROJECT GANTT CHART

#	Name	Duration	Start	Finish	June 2014				July 2014				August 2014				September 2014				Octo
					w23	w24	w25	w26	w27	w28	w29	w30	w31	w32	w33	w34	w35	w36	w37	w38	w39
1	Cleaning and layout	5.0 d	6/2/14	6/6/14	█																
2	Excavate	7.0 d	6/9/14	6/17/14	█																
3	Formwork and rebar	10.0 d	6/16/14	6/27/14	█																
4	Concrete foundations	5.0 d	6/23/14	6/27/14	█																
5	Structural steel	15.0 d	6/30/14	7/18/14					█												
6	Masonry	15.0 d	7/14/14	8/1/14					█												
7	Plumbing	5.0 d	7/21/14	7/25/14					█												
8	Electrical	3.0 d	7/21/14	7/23/14					█												
9	HVAC	5.0 d	7/21/14	7/25/14					█												
10	Roofing	10.0 d	7/28/14	8/8/14					█												
11	Carpentry	10.0 d	8/11/14	8/22/14									█								
12	Lath and plaster	5.0 d	9/8/14	9/12/14									█								
13	Doors and windows	5.0 d	8/18/14	8/22/14									█								
14	Terrazzo	10.0 d	8/18/14	8/29/14									█								
15	Glazing	10.0 d	9/1/14	9/12/14									█								
16	Hardware and millwork	5.0 d	9/15/14	9/19/14									█								
17	Painting	7.0 d	9/15/14	9/23/14									█								
18	Exterior concrete	15.0 d	9/15/14	10/3/14									█								

3. HUMAN RESOURCES INVOLVED

- Civil engineer
- Architect
- Draftsman
- Financial planner
- Project manager
- Builders
- Electricians
- Plumbers
- Painters
- Tillers
- Surveyor
- Quality surveyor

4. REASONS FOR SECURING THE SITE

- To prevent accidents from people around (students, teachers and both educational and non-educational staff)
- To avoid vandalism to the site
- To prevent air pollution

- To avoid theft from valuable building materials and equipment
- To prevent unwanted visitors

5. **BEME**

TOTAL ESTIMATED COST(\$)=15,500,000

DESCRIPTION	PERCENTAGE	AMOUNT(\$)
MISCELLANEOUS	10%	1,550,000
CONSULTANT FEE	15%	2,325,000
SITE PREPARATION AND CLEARING	5%	775,000
TRANSPORTATION COST FEE	12%	1,860,000
PROFIT	20%	3,100,000
TOTAL	62%	9,610,000
COST OF MATERIALS NEEDED	38%	5,890,000
TOTAL ESTIMATED COST	100%	15,500,000

6. **PAYMENT SCHEDULE**

ESTIMATED PAYMENT SCHEDULE=\$15,500,000

DESCRIPTION	PERCENTAGE	AMOUNT(\$)
MOBILIZATION	30%	4,650,000
HALF COMPLETION	30%	4,650,000

FULL COMPLETION	40%	6,200,000
TOTAL	100%	15,500,000
DEFECT LIABILITY	10%	1,550,000

7. DEFINITIONS

- a.** The full meaning of BEME is Bill of Engineering Measurement and Evaluation. 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 any construction endeavor based on a pre-determined scope and specification.
- b.** 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. Depending on the form of contract you are reading, it may also be referred to as a rectification period or defects correction period. A defects liability period is usually a period of around six or 12 months but it can vary depending on the contract used. Any defects or faults which arise during this period (for example - due to defective materials or workmanship) must be put right by the contractor at its own expense.

- c. 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.
- d. 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 like needs of the organization involved in the project, the nature of the project, and its area of application. 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.
- e. ENVIRONMENTAL IMPACT ASSESSMENT(EIA):** 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.