

Ce b) background: ce 2.2 – nature of

Business, Management



CE 2 : Construction of G+2 to G+9 Apartments near Zahran al Junoob, Southern part of Saudi Arabia. a) Introduction: CE 2. 1 - Introduction

This career episode is based on my engineering activity at Saudi Binladin Group.

In this project, I worked as a Quantity Surveyor cum Site Engineer and worked on South Border Infrastructure Project. CHRONOLOGY Project Title South Border Infrastructure Project Dates for the Project November 2012 to December 2015 Duration of the Activity 3 Years and 1 Months Name of the organization Saudi Binladin Group Geographical Location where the experience was gained Zahran al Junoob, Aseer Region, Saudi Arabia. My Role Site Engineer b) Background: CE 2. 2 - Nature of the overall engineering project: Ministry of Interior (M. O.

l) of Saudi Arabia was the client which issued this project to the Main Contractor i. e Saudi Binladin Group. The nature of this project was to build Roads and different kinds of security buildings like police stations, civil defense centers, drug enforcement cells, highway patrol centers and governorate buildings etc. near to the border of Saudi Arabia and Yemen which were distributed in 4 locations.

Location 1 : Al Robua - 12 Buildings of G+2 to G+7 Location 2 : Al Hosn - 4 Buildings of G+2 to G+5 Location 3 : Al Tehwila - 28 Buildings of G+2 to G+9 Location 4 : Al Sah - 7 Buildings of G+2 to G+5 CE 2. 3 - Objective of the project: The main objective of the project was to deliver the project as per client wish and design in the given period of time. The buildings which were

on area from 1000m² to 22000 m² had 4 to 28 no. of G+2 to G+9 Apartments at different locations to be built within tenure of 4 years.

This work had to be done as per scheduled time and handed over to the client in order to avoid financial loss of the company. CE 2. 4 - Nature of your particular work area: · I had to visit the construction sites where the work was being done.

· I had to prepare schedule of quantities of materials and Bills, labour requirement, equipments and other engineering works required in building construction. · I was also responsible for drafting and interpreting specifications, drawings, plans, construction methods, procedures and simultaneously was responsible for execution of all the activities according to the specifications and drawings. CE 2. 5 - Statement of Your Duties: · I prepared tender documents, contracts, budgets, bills of quantities and other documentations. · I discussed the discrepancies between structural and architectural features with my manager and suggested changes. · I checked the drawings and designs by liaising along with the Architectural and designing team to ensure the project/work is carried out as per Client's requirements. · I suggested the Architectural team and other site engineers to make the changes in the design and ensured that the changes were incorporated.

· I also performed risk and value management and cost control. · I ensured the work was carried out and completed by visiting the sites on a daily basis. · I ensured that the materials and manpower was available for the sites. · I studied the drawings which were approved and visited actual

site locations to ensure the requirements were met. CE 2. 6 -

Organizational Chart: Figure below gives the organizational chart of my project. My position is clearly highlighted in Purple: Project Manager Issam Zehran Area Manager Bilal Ghalib Building Manager Jawad Odeh Civil Engineer (Mohsin Khan) c) Personal Work Activity: CE 2.

7 - Technical Details of the work: The nature of work involves around excavation of ground surface and backfilling it after the foundation was done. All the concrete structures below the ground level had to be coated with bituminous paint as it acts as a water proofing to all the concrete structures and prevents from corrosion. This project was executed in accordance with Saudi Building Codes. Usage of high advanced type of construction procedure, the quality of materials, the international codes and standards which were being used in this project. I calculated the quantities and followed drawings, specifications and method of statement from time to time. CE 2. 8 - How you applied your engineering knowledge and skills: When we received the tender of the project, I started studying the scope of the project and was able to suggest some better ways to conduct the project based on my technical knowledge which I gained from the field of civil engineering. I also applied my engineering knowledge and skills during the backfilling procedure which had to be done in layers of 30cm according to method of statement and compaction was required minimum of 95% by performing Field Density Test.

CE 2. 9 - The tasks delegated to you and how did you accomplish: I was assigned to calculate all the quantities of the project from excavation to paint. I was assigned a time period to complete each activity for civil works i.

e. for excavation, backfilling, concrete, steel, formworks, tiles, doors, windows etc. I ensured that I finished my tasks before the specified time and my hard work and efforts were paid when my manager showed his trust in me by elevating my position and giving increment on regular basis. CE 2. 10 - Any particular technical difficulties/problems and how you solved them: Problem: The concrete of the columns was casted without the dowels.

Solution: I notified my manager about this issue then we discussed this with the consultant and found a solution. It was a lengthy procedure but was the best solution for this kind of problem. The solution was to install the dowels in the columns. As the dowels were 25 mm thick we had to drill at least 5mm more than the thickness of the dowel i. e. 30mm and for the depth we followed the tabular column of Hilti. For 25mm thick dowels we used chemical HIT-RE 500 as per hilti standards. After 24 hours of fixing the dowels we did pullout test in order to acquire the required strength in which we were successful.

CE 2. 11- Strategies devised by you including any original or creative design work: Replacement of Hollow Blocks by A. A. C (Autoclaved Aerated Concrete) Blocks.

The block work to be used in the drawing and specifications was hollow but I suggested my manager during our technical meeting to use A. A. C blocks instead of hollow as they are load-bearing, high-insulating and light weight. My manager discussed this with our higher management and took the approval for A. A.

C blocks. CE 2. 12 - How you worked with other team members: During this project, working with my colleagues or subordinates was always a good experience especially with my department (Civil Engineering). Being friendly with other teams was like a helping hand to me. Considering safety issues on site for everyone was like showing humanity and making them aware of the health hazards. My Building manager who had vast experience in this field also helped me in technical aspects of the project and variations in the project whenever we had any additional items to be added to the project cost.

d) Summary: CE 2. 13 - Your view of the overall projects: The project on the whole was a great achievement as it was one of risky project due to its location along the border of Saudi Arabia. We established a great environment and had built temporary offices on each site for us and as well as consultant. We followed all the step by step procedures along with the method of statement and followed safety rules and regulations in compliance with the safety standards to avoid any hazards and to complete the project in the provided scheduled time. CE 2. 14 - How the project fared in meeting the goals/requirements: The project was being executed in accordance with the schedule prepared by the planning department who played a major role in

completing the project on the given time. The main achievement of this project was to satisfy the client by fulfilling all the standards and requirements of the project.

I successfully achieved the target which was assigned to me within specified time. On completion of this project my superiors were also impressed with my work. I also ensured safety and protection at all levels. Moreover, I created project reports and presentations and communicated effectively with the large audience. Working on this project taught me many things which were not possible to learn during my engineering period. I learned to use AutoCAD and MS Excel software to handle the project.

As it was my first project overseas I gained a lot of experience while working in this project such as the high advanced type of construction, the quality of materials, the international codes and standards which were being used in this project. We had a team of engineers with sound knowledge in their field through which I achieved the goals and objectives in the provided time.

CE 2.15 - How your personal role contributed to the project: As my main focus was on technical aspects of the project, we initiated the project on time and carried out the works according to the quantities which were calculated by me, the drawings, specifications and method of statement from time to time. The effective usage of manpower and equipment throughout the project played a vital role in the completion of the project on specified time.