

# CONSTRUCTION METHODOLOGY OF BUILDINGS IN DUBAI

**Conference Hall of the Mantua Industrial Association 11 May 2018**

Building construction industry is a dynamic and interactive game of many complicated processes, it could be chaotic and stressful or a mix of joyful and interesting art of space creations!

We strongly believe that “Cities and places are not playgrounds for Engineers; the Engineers are at the service of community and should be tasked with building places that foster economy, environment and health. Seeking to build cities for the sake of engineering only is irresponsible and unprofessional”.

United Arab Emirates is a leading country in the Middle East on construction industry and it is well known by the iconic buildings and delivery of fast track projects, Dubai in the middle of UAE became a hub of construction expertise and a school for the application.

The seminar explain methods of construction practices of buildings in Dubai, from; initiation, design, permits, approval, construction, validation and acceptance until the handing over. The process will be presented in logical and systematic flow to cover the investments in building projects from selecting the appropriate business models, feasibility, design, technical, commercial audits, handing over and finally to use.

As a physical start of every project we cover the Planning and Municipal regulations and the various competent authorities, building permits, approvals, flow charts, cost analysis, economic and financial sustainability. This section also

cover the process of how the building and construction projects are permitted by authorities and how to reach to the completion certificate.

Special buildings require operational certificates and special permits like Hotels , schools and Hospitals, will also be elaborated.

Examples of the cost model for the construction stage and the weight of each element of the building are explained in the cost model slides. A cost bench marks for all types of buildings from recent market surveys are shared.

The Environmental sustainability implementation during each stage of the life cycle is also covered in the sustainability section, an example of the BREAAAM(Building Research Establishment Assessment Environmental Assessment Method), that uses sustainability indices based on scientific data. The buildings are evaluated on a "Pass" scale, from Good, Very Good, Excellent and Exceptional. This classification is carried out by a team of independent third-party evaluators.

Al Zahia is the first project in the Middle East that applied BREEAM and has been selected as a case study.

As control and monitoring the design and construction of the building is fundamental factor for the success of any project , the true Life of the Project (PROJECTS MODEL LIFE CYCLE) through its design, specifications, development, tender documentation, offer, planning, construction, quality control, final certifications, delivery. Control measures are explained briefly.

This section cover the life cycle analysis of project, the stages of project flow, the tasks of the Architects, planners, engineers, Quantity surveyors, cost managers construction managers until project completion and handing over to the operators.

Every stage is explained briefly and the tasks will be identified as illustrated in the flow charts.

At the end there are movies and photos to show the story of selected projects during the construction stage. This has been prepared in line with the agenda and letter of the invitation.

### **Examples of major interventions carried out**

1. Five-star HOTEL built in Liwa ( Empty Quarter) desert in just 10 months.
2. Five star Hotel in Abu Dhabi, designed in USA by RNL Architects and Interiors works designed by Peter Sillings , built in 18 months.
3. Five start Hotel refurbishment project, Pullman Deira City Centre , Dubai , a 10 months duration,224 rooms.
4. Community City in the Emirate of SHARJAH (UAE) for the construction of 421 residential units in three years, with a shopping mall of 58,000 square meters, streets, infrastructure, parks. This intervention, certified by BREEAM "VERY GOOD", is selected as an example of study.

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