

LATEST BEST PRACTICES IN CONSTRUCTION MANAGEMENT

INTRODUCTION

This program covers application of construction management techniques related to the unique nature of construction projects. Looks at elements of construction management, construction delivery systems, partnering and subcontracting, cost estimating and scheduling, contract administration and control techniques, construction quality control, construction safety, use of construction contract control software. Includes case studies from the construction industry.

OBJECTIVES

- Understand the fundamentals of construction management, construction project life cycle, project participants, delivery methods and construction contracts
- Identify the benefits of partnering, subcontracting, materials management, quality and safety management.
- Identify methods of contract measurements, changes, extra work and claims avoidance
- Apply team and communication skills

PRESENTER

Dr. Jamal F. AlBahar, PMP, AVS

Registered Arbitrator Dubai, U.A.E. and Kuwait - Associate Value Specialist, SAVE, USA

Active Member: PMI, CMAA, AACE, AAA, PMA, SAVE, CSI,

President, PROMIS- Project Management Engineering Systems

Dr. Al Bahar, is a regional expert in project management applications and a well recognized consultant in construction contracts and claims analysis. Dr. AlBahar is a frequent regional and international speaker on subjects related to project management, construction contracts, tendering procedures, claims analysis/evaluation, arbitration, and value engineering. Dr. AlBahar has conducted over 500 public and in-house training courses in the last 20 years on subjects related to contracts, claims analysis and pricing, project management, value engineering, budgeting and cost estimating, and effective project administrative procedures. Dr. AlBahar is a registered arbitrator in Kuwait, Bahrain and the U.A.E.

PROGRAM

DAY ONE

CONSTRUCTION INDUSTRY AND PRACTICE

- **Module 1 – Management in the Engineering and Construction Industry**
 - Construction's Future
 - The Nature of the Construction Industry
 - Types of Construction Projects
- **Module 2 – Development and Organization of Projects**
 - The Life Cycle of a Construction Project
 - Basic Management Activities, Contractual Relationships
- **Module 3 – Applications and Requirements for Management Organizations**
 - Applications and Limitations, Relationships & Responsibilities
 - Requirements of the Professional Construction Manager or Program Manager

DAY TWO

PROFESSIONAL CONSTRUCTION MANAGEMENT IN PRACTICE

- **Module 4 – Introduction to an Example Project**
 - Project Life Cycle, The Successful Proposal
 - Design-Construct, Developer
 - Management, Field Administration, and Quality Control
- **Module 5 – Preconstruction Site Investigation, Planning, Scheduling, Estimating and Design**
 - Construction Site Conditions
 - Area Construction Practice, Preliminary Estimate
 - Value Engineering Program, Construction Planning
- **Module 6 – Bidding & Award**
 - Developing CM Construction Packages
 - Preparation of Bidding Documents
 - Contractor Qualification, Bidding and Award
- **Module 7 – Construction**
 - Overall Planning and Control for Construction Management
 - Typical Organizations for Construction Management
 - Safety Responsibilities, Contract Administration and Coordination
 - Quality Control Services
 - Start-up and Final Closeout, Legal Considerations
- **Module 8 – Applications of Controls**
 - Management - Level Reporting by Construction Manager
 - Overall Cost Controls by Construction Manager
 - Schedule and Progress Controls by Construction Manager
- **Module 9 – Selecting a Professional Construction Manager**
 - Basic Qualifications
 - Typical Selection Methods, Recommended Methods
 - Compensation and Fees on Cost-Reimbursable Projects
 - Contractor Selection by Competitive Bidding
 - Markups for Fixed Price and Guaranteed Maximum Price Projects, Owner Responsibilities

DAY THREE

METHODS IN PROJECT MANAGEMENT

- **Module 10 – Concepts of Project Planning and Control**
 - Designing to Reduce Construction Costs
 - Computer Applications in Project Planning and Control
- **Module 11 – Estimating Project Costs**
 - Conceptual and Preliminary Estimates
 - Detailed, Definitive Estimates
 - Estimating Different Types of Construction, Successive Estimating
 - Range Estimating, Converting Estimate to Control Budget

DAY FOUR

- **Module 12 – Planning & Control of Operations & Resources**
 - Alternative Planning and Control Tools
 - Concepts of Network-Based Schedules
 - Documentation for Changes, Claims and Disputes
- **Module 13 – Cost Engineering**
 - Cost Control and Cost Engineering
 - Cost Codes, Control Budgets
 - Sources of Data for Cost Control
 - Engineering Economy in Cost Engineering
- **Module 14 – Procurement**
 - Concepts of Procurement, The Procurement Cycle
 - Purchasing and Contracting Practice
 - Control of Materials Procurement
- **Module 15 – Value Engineering**
 - Value Engineering Job Plan
 - Life Cycle Costing
 - Value Engineering in the Private Sector
 - Successful Public Sector Value Engineering Programs
- **Module 16 – Quality Assurance**
 - Basic Concepts and Definitions, Economics of Quality
 - Organization for Quality Assurance, Peer Reviews
 - Methodology, Quality in the Constructed Project
- **Module 17 – Safety and Health in Construction**
 - Motivators for Improved Performance
 - Problems in Safety & Health, Implementation Guidelines

DAY FIVE

BUSINESS METHODS IN MANAGING CONSTRUCTION OVERVIEW

- **Module 18 – Risk Management, Insurance and Bonding**
 - Risk Management Programs
 - Construction Insurance, Construction Surety Bonds
- **Module 19 – Claims, Liability and Dispute Resolution**
 - Contract Type and Content
 - Contract Changes, Major Claim Categories, Alternate Dispute Resolution