

**Seminar Subject List - d 812 - American Society of Professional Estimators, Western Michigan Chapter - seminar disk 812**

- I. The following design and construction topics are suggested for consideration in assembling and presenting a workshop and seminar to the American Society of Professional Estimators - Grand Rapids, Michigan - January 17, 2002. Topics are to be graded from five to one indicating the degree of value they might have for potential attendees.
  - A. Rating descriptions to be applied to possible seminar topics.
    1. Rating = 5 - Subject is of exceptionally high interest and importance to potential attendees, their management staff and their clients. Will help improve staff performance and maintain leadership and profitability in the professional, technical and business disciplines in which they desire to practice.
    2. Rating = 4 - Subject is of high interest to potential attendees, their management staff and their clients. Will help improve staff performance and profitability in the technical and business disciplines in which they desire to practice.
    3. Rating = 3 - Subject is of average interest to potential attendees, and will likely improve the level of staff proficiency in specific technical and management fields.
    4. Rating = 2 - Subject is of mild interest and applicability for potential attendees and their management.
    5. Rating = 1 - Subject is of little interest or applicability for potential attendees and their management.
  - B. Suggested rating for subjects by rjs
    - 5 Thinking & reasoning effectively - improving your thought processes for improved performance
    - 5 The macro matrix of the design & construction industry - the large picture of the design and construction profession and why it is important to understand
    - 5 Resolving conflicts - design and construction conflict resolution and effective ways of achieving it
    - 5 Project management - its nature, rationale, & practice

- 5 Project delivery systems - what are the various methods of assembling, selling, obtaining and managing a construction project?
- 5 Participants in the construction profession - the six basic participants in planning, design, construction, operation and regulation of the building profession and how they interact
- 5 Nine steps to becoming a good project manager - the nine essentials thinking practices of good managers
- 5 Iterative estimating to a guaranteed maximum price (gmp) - estimating to a cap price by controlling the cost through proper design and continuous value engineering
- 5 Identifying the problem job - the characteristics of a problem job and how they show up early in the program and design stages
- 5 Focusing on vital targets - how to separate the various degrees of problems encountered and concentrate on the most important first
- 5 Evaluating impacts on project progress and design - determining what impact various disruptions have on a construction project
- 5 Contract document packaging on dovetailed projects - assembling bid packages on fast track projects
- 5 Construction management , what it is, and what it is not - the liable, non liable, agency, contractor types and what they mean to the owner and others
- 5 Collections, retention & final payment - the methods and reasons for proper payment practices, and the effects of retention on project performance
- 4 Yardsticks by which to measure project success - how do you know when you've done a good job, and how do you develop a set of standards by which success is determined
- 4 Using intelligent questioning - the how and why of questioning techniques and how they help insure project success

- 4 The function and role of construction business participants  
“What do all of these people we know and deal with, do for a living, and what do they have to do with my project?”
- 4 Starting up the project - what are the essential ingredients needed to properly start a design or construction project?
- 4 Scheduling construction work - principles of deriving good schedules from good job plans.
- 4 Risk management as a decision tool - properly assigning risk as a method of achieving a balanced profit
- 4 Project money flow - the flow of the money resource on a design and construction project and why this flow is important to all involved
- 4 Profit and its role in success - the types of profit and why they are important to the various participants in the construction profession
- 4 Professional behavior in the design and construction business - a restatement of some of the basic principles of professional behavior in our business and why it is important to our success
- 4 Processing revisions - the importance and methodology of making least cost changes to a project in progress
- 4 Problem solving - the methods by which solutions to problems are approached, analyzed and solutions discovered
- 4 Principles of organization for the design and construction professional - key principals of organization and staff structuring for effective action - how do the various parties in a design and construction program best interact with each other to achieve the project mission & objectives?
- 4 Preparing and using contract document matrixes - how to package contract documents for use in fast track projects
- 4 Planning and scheduling the architectural and engineering production process - how to apply effective tools and techniques to properly model the construction project and simulate impacts on the job
- 4 Network planning & critical path method - basic and advanced methods of planning and scheduling your design and

construction work

- 4 Measuring and monitoring performance - how to measure your progress toward defined goals and objectives
- 4 Managing by exception - a method of managing to the actual needs of a project
- 4 Kinds of estimates and how they're used - the various methods of estimating available to the construction professional
- 4 Keeping accurate records - the importance of record keeping and how to balance record keeping with the needs for the records
- 4 How do we achieve true profit? - the meaning of profit as applied to all participants in a design and construction program
- 4 Employing the power of training - how to train effectively
- 4 Elements of business and management - basic building blocks upon which free enterprise organizations can be successfully managed
- 4 Dismissal from the project - the basic principles of dismissal for cause and dismissal for convenience
- 4 Decision making tools for the professional - principals of making useful and reliable decisions
- 4 Construction contract characteristics - what are the various methods by which design and construction projects are contracted for, and managed?
- 4 Common causes of contested claims - what are the most common construction troubles?
- 4 Codes and ordinances - what is the role of public, semi public and private regulation and how is it used effectively
- 4 Closing out the project - how do you get out of the project once you have built it?
- 4 Claim prone job characteristics - what are the signals of a bad job?
- 4 Applying situational thinking - thinking and reasoning effectively for good decision-making
- 4 Decision making
  - a) Techniques

- (1) Franklin method
  - (2) Weights & values
  - (3) Heirarchal method
  - (4) Priority system
- b) Principles
- (1) PMI techniques
- 3 Writing good reports - always a needed subject & always good to review in conjunction with other communication subjects
  - 3 Weather and its impact on construction - what are the criteria for building weather considerations into a project plan and schedule
  - 3 Translating the project network model - various methods of translating information about a project into different graphic languages for better management and control potential
  - 3 Tracking project cash flow - the use of planning and scheduling tools as applied to the financial resources available for project financing
  - 3 Time management - how to manage time as a resource
  - 3 The nature of risk - what risk is and the methods by which it is best allocated
  - 3 Technography and its design and construction - useful methods of in-meeting note taking to improve and expedite decision making
  - 3 Resource allocation for success - how to properly assign resources and avoid potential profit loss
  - 3 Real estate development and its relation to the construction process - the role of property control in setting parameters for the planning, design, construction and operation of a facility
  - 3 Professional service contract characteristics - agency and contracting methods for planning, design, and consulting services.
  - 3 Principles of effective communication - improving personal and organizational skills in conveying ideas and data to others
  - 3 Preparing and using check lists - the use of check lists as a planning and follow up tool to insure ongoing attention to

important management details

- 3 Partnering - how to use it as a preventive technique in avoiding or lessening construction related destructive disputes and conflict
- 3 Marketing design and construction services - various methods of finding markets, developing your place in the market, and working effectively in the developed market area
- 3 Management forms
  - a) General management  
The overarching management of a group of functions, projects, and other kinds of operations. Usually this management group is considered to be the top executive and administrative personnel in the organization. At any point in time any of the top general management staff could be called upon to be a functional or a project manager.
  - b) Functional management
  - c) Project management
    - (1) Selection of project delivery systems
    - (2) Monitoring the project
- 3 Improving your people skills - general methods of improving your abilities to work effectively with people
- 3 Fundamentals of good management - how does the good manager do it?
- 3 Ethics in the design and construction profession - the value added by ethical behavior and how to add it
- 3 Elements of true profit - the types and nature of profit in business
- 3 Effective meetings - methods of planning, organizing, conducting and documenting meetings to get results
- 3 Documentation types, processes, & levels - how to properly and most economically document your construction project
- 3 Dispute resolution - binding and non binding dispute resolution and what they are
- 3 Developing a consistent working glossary of terms - developing a vocabulary for accurate communication on a

project

- 3 Defining goals and objectives - how do you plan where you want you and your organization to go?
- 3 Creativity and how it is achieved - the six basic elements of being creative in construction
- 3 Costs committed vs. money spent - how committed and actual money flows on a project
- 3 Contract law and its impact & effect on the architect/engineer - what are the legal needs of the designer & how is the law relevant to the designer?
- 3 Better understanding yourself - improving your personal skills
- 3 Alternative dispute resolution - resolving conflict on construction projects
- 2 Writing good project programs - the role of the early, well written project program - what it is and how it affects project success
- 2 What is total quality management (TQM) - really? - is there such a thing?
- 2 Value engineering - when and how is it best used to improve the cost effectiveness of installation and operation of construction components
- 2 Roles and duties of the architect/engineer field administrator - how the design team best interacts with others during the construction stage of a project
- 2 Principles of good field inspection for the design team - the importance of design checks and balance on field operations and how to achieve it
- 2 Management styles and their relation to success in the owner, designer or construction organization
- 2 Incentives and disincentives as a risk control tool - the use of rewards and penalties to stimulate improved project performance
- 2 Effective pre bid meetings - the agenda subjects and the management of good pre bid meetings

- 2 Designing lean useful forms - basic principles of designing and using design and construction related forms
  - 2 Controlling office overhead - causes, helps and methods by which the office overhead can be controlled
  - 2 Business principles of the architectural/engineering business - what are the elements of successful non financial business practices
  - 2 Basic project management software tools for the designer & constructor
- C. Subject ratings by rjs in descending order for aspe seminar
1. Rating = 5
    - a) 5 \*The macro matrix of the design & construction industry - the large picture of the design and construction profession and why it is important to understand
    - b) 5 \*Project management - its nature, rationale, & practice
      - (1) 5 \*Project delivery systems - what are the various methods of assembling, selling, obtaining and managing a construction project?
      - (2) 5 \*Participants in the construction profession - the six basic participants in planning, design, construction, operation and regulation of the building profession and how they interact
      - (3) 5 \*Nine steps to becoming a good project manager - the nine essentials thinking practices of good managers
      - (4) 5 \*Iterative estimating to a guaranteed maximum price (gmp) - estimating to a cap price by controlling the cost through proper design and continuous value engineering
      - (5) 5 \*Contract document packaging on dovetailed projects - assembling bid packages on fast track projects
      - (6) 5 \*Construction management, what it is, and what it is not - the liable, non liable, agency, contractor types and what they mean to the owner and others
    - c) 5 \*Thinking & reasoning effectively - improving your thought processes for improved performance



- d) 5 \*Resolving conflicts - design and construction conflict resolution and effective ways of achieving it
  - e) 5 \*Identifying the problem job - the characteristics of a problem job and how they show up early in the program and design stages
    - (1) 5 \*Focusing on vital targets - how to separate the various degrees of problems encountered and concentrate on the most important first
    - (2) 5 \*Evaluating impacts on project progress and design - determining what impact various disruptions have on a construction project
2. Rating = 4
- a) 4 Program management - its nature, rationale, & practice
  - b) 4 Yardsticks by which to measure project success - how do you know when you've done a good job, and how do you develop a set of standards by which success is determined
  - c) 4 Using intelligent questioning - the how and why of questioning techniques and how they help insure project success
  - d) 4 The function and role of construction business participants "What do all of these people we know and deal with, do for a living, and what do they have to do with my project?"
  - e) 4 Starting up the project - what are the essential ingredients needed to properly start a design or construction project?
  - f) 4 Scheduling construction work - principles of deriving good schedules from good job plans.
  - g) 4 Risk management as a decision tool - properly assigning risk as a method of achieving a balanced profit
  - h) 4 Project money flow - the flow of the money resource on a design and construction project and why this flow is important to all involved
  - i) 4 Profit and its role in success - the types of profit and why they are important to the various participants in the construction profession

- j) 4 Professional behavior in the design and construction business - a restatement of some of the basic principles of professional behavior in our business and why it is important to our success
- k) 4 Processing revisions - the importance and methodology of making least cost changes to a project in progress
- l) 4 Problem solving - the methods by which solutions to problems are approached, analyzed and solutions discovered
- m) 4 Principles of organization for the design and construction professional - key principals of organization and staff structuring for effective action - how do the various parties in a design and construction program best interact with each other to achieve the project mission & objectives?
- n) 4 Preparing and using contract document matrixes - how to package contract documents for use in fast track projects
- o) 4 Planning and scheduling the architectural and engineering production process - how to apply effective tools and techniques to properly model the construction project and simulate impacts on the job
- p) 4 Network planning & critical path method - basic and advanced methods of planning and scheduling your design and construction work
- q) 4 Measuring and monitoring performance - how to measure your progress toward defined goals and objectives
- r) 4 Managing by exception - a method of managing to the actual needs of a project
- s) 4 Kinds of estimates and how they're used - the various methods of estimating available to the construction professional
- t) 4 Keeping accurate records - the importance of record keeping and how to balance record keeping with the needs for the records
- u) 4 How do we achieve true profit? - the meaning of profit as applied to all participants in a design and construction program

- v) 4 Employing the power of training - how to train effectively
  - w) 4 Elements of business and management - basic building blocks upon which free enterprise organizations can be successfully managed
  - x) 4 Dismissal from the project - the basic principles of dismissal for cause and dismissal for convenience
  - y) 4 Decision making tools for the professional - principals of making useful and reliable decisions
  - z) 4 Construction contract characteristics - what are the various methods by which design and construction projects are contracted for, and managed?
  - aa) 4 Common causes of contested claims - what are the most common construction troubles?
  - ab) 4 Codes and ordinances - what is the role of public, semi public and private regulation and how is it used effectively
  - ac) 4 Closing out the project - how do you get out of the project once you have built it?
  - ad) 4 Claim prone job characteristics - what are the signals of a bad job?
  - ae) 4 Applying situational thinking - thinking and reasoning effectively for good decision-making
  - af) 4 Decision making
    - (1) Principles
      - (a) PMI techniques
    - (2) Techniques
      - (a) Franklin method
      - (b) Weights & values
      - (c) Heirarchal method
      - (d) Priority system
  - ag) 5 Collections, retention & final payment - the methods and reasons for proper payment practices, and the effects of retention on project performance
3. Rating = 3
- a) 3 Writing good reports - always a needed subject & always good to review in conjunction with other communication

subjects

- b) 3 Weather and its impact on construction - what are the criteria for building weather considerations into a project plan and schedule
- c) 3 Translating the project network model - various methods of translating information about a project into different graphic languages for better management and control potential
- d) 3 Tracking project cash flow - the use of planning and scheduling tools as applied to the financial resources available for project financing
- e) 3 Time management - how to manage time as a resource
- f) 3 The nature of risk - what risk is and the methods by which it is best allocated
- g) 3 Technography and its design and construction - useful methods of in-meeting note taking to improve and expedite decision making
- h) 3 Resource allocation for success - how to properly assign resources and avoid potential profit loss
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- j) 3 Professional service contract characteristics - agency and contracting methods for planning, design, and consulting services.
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- l) 3 Preparing and using check lists - the use of check lists as a planning and follow up tool to insure ongoing attention to important management details
- m) 3 Partnering - how to use it as a preventive technique in avoiding or lessening construction related destructive disputes and conflict
- n) 3 Marketing design and construction services - various methods of finding markets, developing your place in the

market, and working effectively in the developed market area

- o) 3 Management forms
  - (1) General management  
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  - (2) Functional management
  - (3) Project management
    - (a) Selection of project delivery systems
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- p) 3 Improving your people skills - general methods of improving your abilities to work effectively with people
- q) 3 Fundamentals of good management - how does the good manager do it?
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- u) 3 Documentation types, processes, & levels - how to properly and most economically document your construction project
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- w) 3 Developing a consistent working glossary of terms - developing a vocabulary for accurate communication on a project
- x) 3 Defining goals and objectives - how do you plan where you want you and your organization to go?

- y) 3 Creativity and how it is achieved - the six basic elements of being creative in construction
  - z) 3 Costs committed vs. money spent - how committed and actual money flows on a project
  - aa) 3 Contract law and its impact & effect on the architect/engineer - what are the legal needs of the designer & how is the law relevant to the designer?
  - ab) 3 Better understanding yourself - improving your personal skills
  - ac) 3 Alternative dispute resolution - resolving conflict on construction projects
4. Rating = 2
- a) 2 Writing good project programs - the role of the early, well written project program - what it is and how it affects project success
  - b) 2 What is total quality management (TQM) - really? - is there such a thing?
  - c) 2 Value engineering - when and how is it best used to improve the cost effectiveness of installation and operation of construction components
  - d) 2 Roles and duties of the architect/engineer field administrator - how the design team best interacts with others during the construction stage of a project
  - e) 2 Principles of good field inspection for the design team - the importance of design checks and balance on field operations and how to achieve it
  - f) 2 Management styles and their relation to success in the owner, designer or construction organization
  - g) 2 Incentives and disincentives as a risk control tool - the use of rewards and penalties to stimulate improved project performance
  - h) 2 Effective pre bid meetings - the agenda subjects and the management of good pre bid meetings
  - i) 2 Designing lean useful forms - basic principles of designing and using design and construction related forms

- j) 2 Controlling office overhead - causes, helps and methods by which the office overhead can be controlled
- k) 2 Business principles of the architectural / engineering business - what are the elements of successful non financial business practices
- l) 2 Basic project management software tools for the designer & constructor

5. Rating = 1 - none

**II. Information, training and education subjects that are intended to stimulate ideas about design and construction topics of interest to the design and construction professional. These are topics in which mentoring and coaching is often needed for professional, technical, and business success.**