

Partnering for the Design & Construction Profession
NSPE Annual Meeting - July, 1999
Spokane, Washington

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PARTNERING FOR THE DESIGN AND CONSTRUCTION PROFESSION

by Ralph J. Stephenson, P.E. Consulting Engineer

A discussion of construction project partnering, what it is, how it is used
and how it has impacted facilities planning, design and construction -
presented to the National Society of Professional Engineers at their 1999
Annual Meeting - Spokane, Washington.

* * * *

This paper has been prepared for the NSPE 1999 annual convention to serve
the following purposes:

1. Provide a summary and evaluation of current construction alternative dispute resolution practices.
2. Identify and analyze root causes of destructive types of conflicts currently encountered in the planning, design and construction profession.
3. Explain procedural techniques for using various types of partnering related conflict resolution processes.

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4. Identify future design and construction practices which will impact practicing professionals over the next few years.

5. Present methods of using partnering systems to improve day-to-day performance of planning, design and construction professionals.

Experience has shown that partnering is a conflict resolution method by which the practicing professional can achieve generic construction success¹. We will attempt, in this paper, to crystallize the meaning of partnering so professionals understand, and properly use partnering principles, to bring increased quality, profitability and fun to their work.

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¹ Generic construction - The field of business practice that encompasses all phases of the construction industry, including programming, planning, designing, building, operating, and maintaining facilities.

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Section 1 - Introduction

An overview of today's planning, design, and construction profession.

Partnering is a way of achieving an optimum relationship between a customer and a supplier. It is a method of doing business in which a person's word is his or her bond and where people accept responsibility for their actions. Partnering is not a business contract but a recognition that every business contract includes an implied covenant of good faith.

* * * *

"I can't totally explain how partnering helps a job run better - all I can say is that it does something to the stakeholders who sign the charter. They seem to quickly become a team that tries to achieve excellence in what they are doing."

(Mike Kolky, project manager with general contractors Gunlach-Champion, Houghton-Hancock, Michigan).

* * * *

The above quote is from a kickoff statement made by Mr. Kolky to introduce the partnering session for a new project at Michigan Technological University in Michigan's Upper Peninsula. Mike Kolky had been Gunlach-Champion's project manager for MTU's recently completed 167,000 square foot Dow Environmental Sciences building on which partnering had also been used. His statement of support was a spontaneous expression of the good feeling that comes from participating in a successfully executed design and construction program.

What is this mysterious thing called "PARTNERING" and how does it work?

After having chaired 57 partnering meetings, I have yet to fully identify what the partnering system brings to a job that seems to provide a high probability for achieving above average success!

It appears though, that partnering provides an opportunity for the participants to see how the help they give others on the job, benefits both parties and assists all team members achieve three critical results:

1. A better-than-expected performance by all members of the project team.
2. A sustained belief by the project team that they can succeed.
3. A drive to achieve a profit¹ for all participants on the project through the team member's efforts.

Not every partnered job turns out well. However, these less-than-successful projects are few and far between: most times partnering has produced returns that, when quantified, show a high rate of return on the investment. I once asked a contractor's project director on a \$400 million hospital program how partnering had helped the project team improve their anticipated financial profit. His response: "Partnering has cost us about \$45,000 to date: I estimate that without partnering the cost to resolve destructive conflict that might have erupted on the job, but didn't, could have cost several hundred thousand dollars."

Much of the need to improve the technical, business and professional design and construction methods we use, results from the extreme complexity of current project delivery methods². Partnering helps a project team effectively use the elements of these delivery systems to better manage destructive conflict and to resolve critical disputes.

Why are generic construction conflicts and disputes so frequent? To help find an answer let us review the current structure of today's design and building industry. Major elements of planning, design and construction projects are the:

- Component 1 - actions to be taken,
- Component 2 - functions to be fulfilled,
- Component 3 - those responsible for the work.

¹ See Attachment A - Glossary of Terms, for a multiple definition of profit.

² Project delivery system - A method of assembling, grouping, organizing & managing project resources so as to best achieve project goals & objectives.

If we form these into the three dimensional matrix shown in **Figure 1 - Macro Matrix** we find there are 546 work spaces that constitute most generic construction projects - 7 actions to be taken (x axis), 13 functions to be fulfilled (y axis), and 6 parties responsible for doing the work (z axis).

Further analyzing the planning, design and construction process shows that most parties to contracts on a generic construction job have entered into some form of a legally binding agreement for their work. Usually two major organizational groups are under contract:

- **Group 1 - Designers** (design service consultants) - those who formulate plans for the project, prepare the design criteria, prepare documents from which the project is built, and provide project support services.
- **Group 2 - Constructors** (construction service consultants) - those who build the project from the design criteria and construction documents.

Within each contract group, there are four legal components:

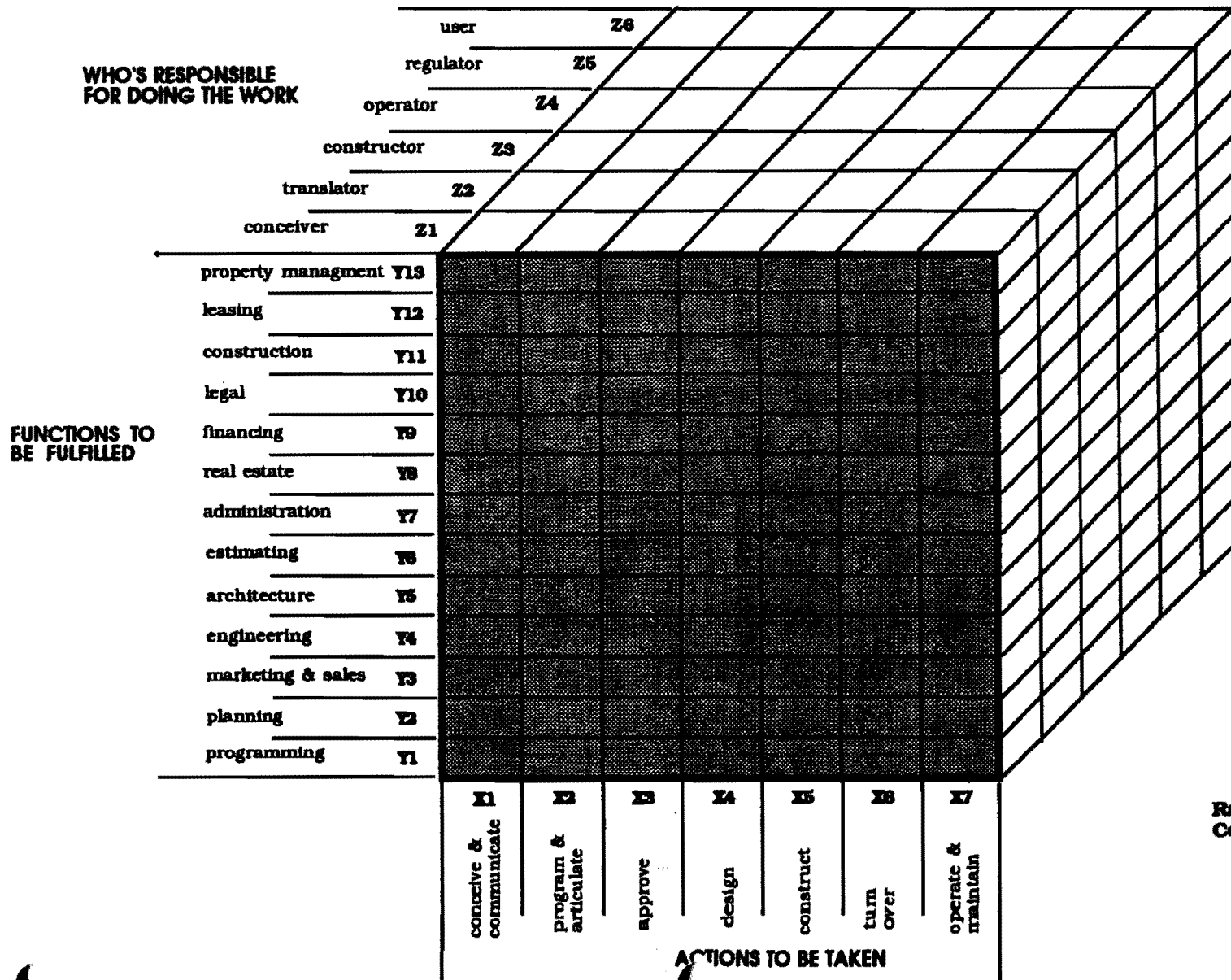
- Component 1 - Agreement premises
- Component 2 - Authority limits
- Component 3 - Payment methods
- Component 4 - Scope of contract services

Combining the contract groups and the corresponding legal components provides the information shown in **Figure 2. Design Service Contract Characteristics**, and **Figure 3. Construction Contract Characteristics**.

The complexity of formal and informal interrelations possible on a planning, design and construction program can be imagined when we realize that in addition to the 546 cubicles in the macro matrix (Figure 1) there are hundreds of combinations of contract characteristics possible in the two contract groups - design services and construction services.

Further, each of the parties involved in either a formal or informal position on a planning, design and construction program have one or more profit motives that furnish much of their drive to succeed. Seven different types of profit should be

FIGURE 1 MACRO MATRIX BOUNDARIES OF DESIGN AND CONSTRUCTION



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Figure 2. Design Service Contract Characteristics

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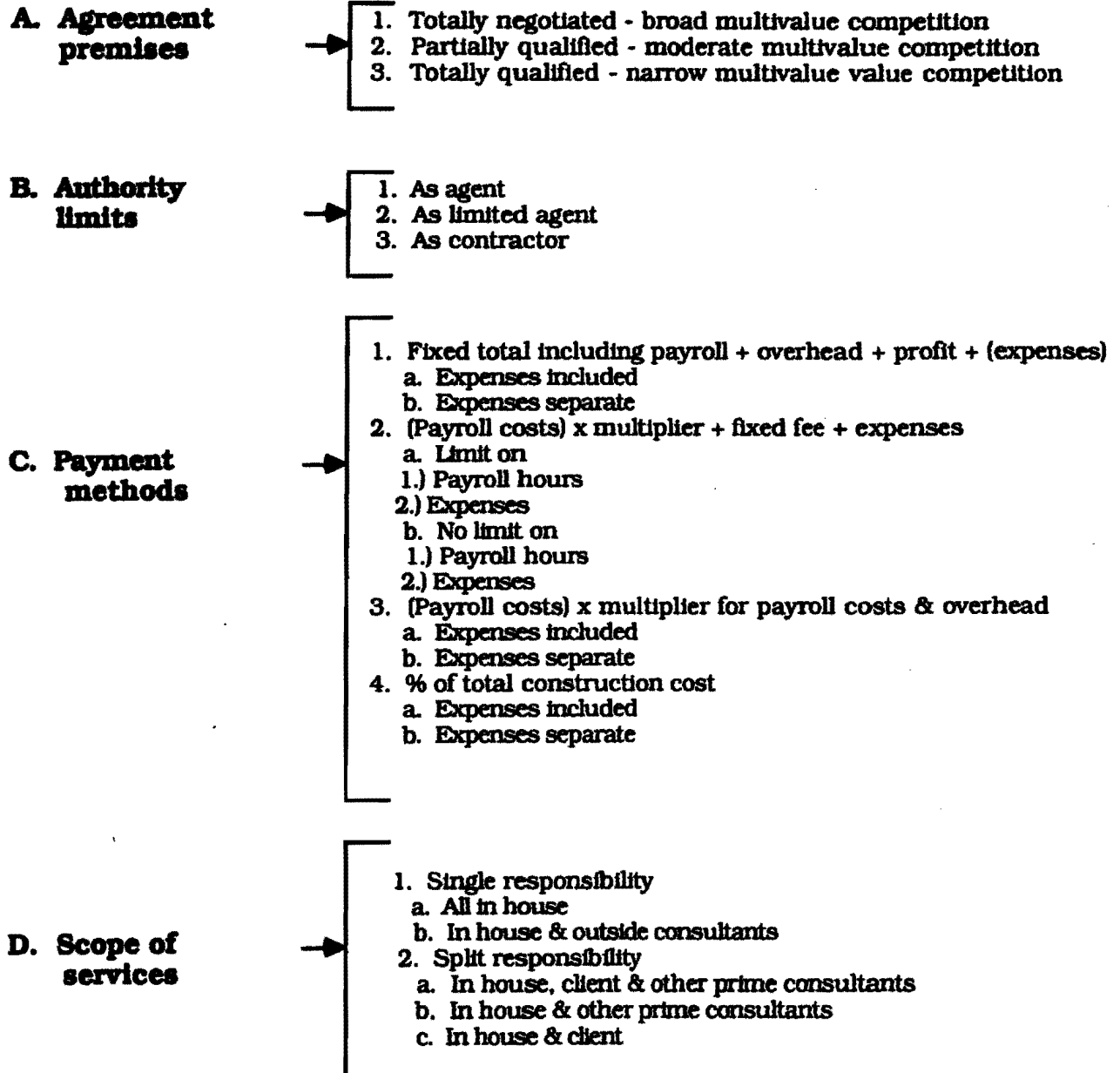
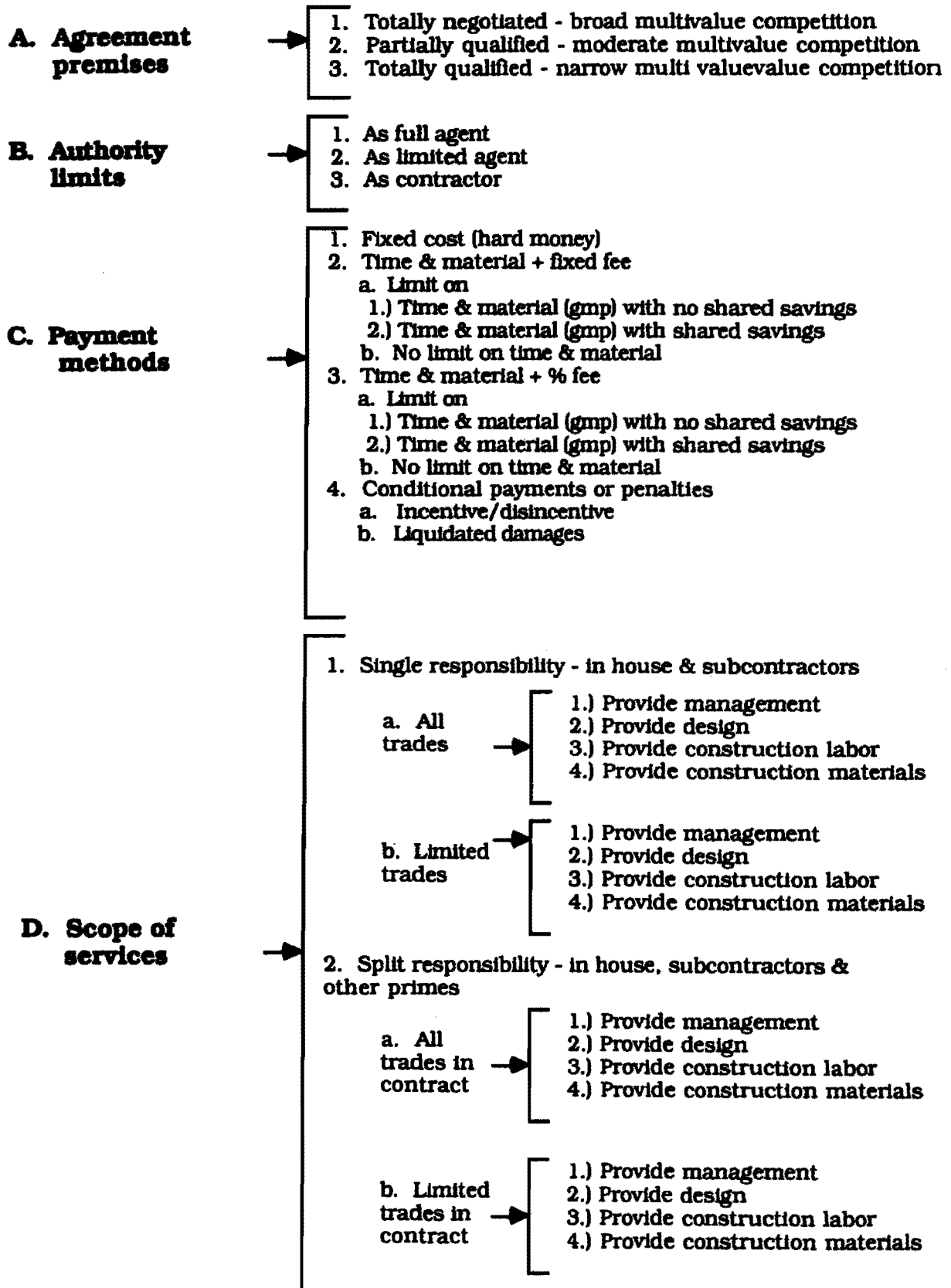


Figure 3. Construction Contract Characteristics

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considered when evaluating the goals and objectives of the six participants in the generic construction process.

01. Financial - an improvement in a money position,
02. Social - a gratifying experience contributing to society's well being,
03. Self actualization - a gain in personal non financial satisfaction by contributive work,
04. Value system - reward gained by application of values in which one believes,
05. Technical - acquisition of technical skill or technical data of value,
06. Enjoyment - personal enjoyment of a situation gained from involvement in the situation,
07. Educational - improvement made possible only by efforts exerted in any given learning situation.

What benefits can be expected of a properly executed partnering effort? I believe that a project team entering into the moral agreement known as partnering can expect at least eleven better outcomes when compared to similar outcomes on a non-partnered program. Benefits include:

01. A reduction in the number, intensity and magnitude of destructive disputes.
02. A clearer definition of project objectives with a higher percentage of these objectives achieved.
03. Increased responsiveness and greater awareness of timely action and what benefits it brings to the project team.
04. Higher internal and external trust levels in all major functional efforts of the project team.
05. Greatly improved quality, timeliness and appropriateness of project related communications.
06. Improved action, cooperation and teamwork within and between the

organizations represented by the stakeholders on the project team.

07. Increased awareness of the advantages and improvement possible in the application of timely and properly managed value engineering.

08. Improved procurement processes and expediting procedures.

09. Higher project team morale, and a better understanding by all parties of the problems of others on the project.

10. Increased understanding and improvement in the quality and use of the project program from which the contract documents are derived.

11. Greater awareness and improved quality of project close out.

Section 2 - Design & Construction

Conflicts and Problems

Where the need for intelligent dispute resolution originates.

The design and construction profession contains the potential for risks to be taken, conflicts to be resolved, and occasionally, physical dangers to confront. The risks, conflicts and dangers that we expect in our work as planners, designers and contractors must be kept in balance with the expected reward on our investment. The investment might be in money, time, education or other venture necessities. A properly structured job management system helps make risks more predictable and allows design and construction professionals to select the methods to be used on their programs to manage risk and effectively resolve conflict.

Planners, designers and constructors should always be able to answer four basic questions about any project upon which they are engaged:

01. What problems do others cause us on projects of this type?
02. What problems do we cause others on projects of this type?
03. What is the single most important goal to be achieved by my organization and me by this project being successfully completed?
04. In light of our answers to questions 1, 2 and 3 what can we do to encourage good relations and excellent performance on the project?

By accurately identifying probable job conflicts early, even doubtful design or construction programs may be undertaken with a reasonable expectation of achieving success and realizing an adequate profit - that is, profit in whatever terms the project team members see as signaling a successful endeavor.

With this thought in mind let us review these elements of conflict situations:

01. Conflict causes,
02. Conflict analysis, and
03. Conflict management.

1. Conflict Causes

Conflict in construction is often caused by:

- Not understanding that conflicts generally lead directly to actions and results.
- Frustration over a lack of control of events affecting performance.
- Differences in goals and objectives of parties involved in the project.
- Lack of understanding the needs of others involved in related planning, design, and construction processes.
- Resentment or dislike resulting from a perceived lack of value added to projects by those responsible for adding value.
- Demands for higher quality than specified, especially on hard money projects.
- Failure to meet commitments.
- Lack of timely decision making.
- Lack of ability to do the job.
- Poor training.
- Inadequate credentials.
- Indifferent leadership.
- Bad blood among participants.

- Desire to take advantage of those in weaker positions.
- Misplaced attempts to demonstrate who is in charge.
- Greed.

This cause list could be extended indefinitely. However, in the interest of using these causes to improve performance, we have attempted to refine the subjective elements of the above list into a set of specific classifications. In more than 60 project partnering meetings in which I participated between 1991 and 1998, over 7,000 problem conditions were identified by the participating planners, designers, constructors, owners, public agencies, inspectors, and others who had a major stake in the program's success.

For the most part, problems identified fell within 45 specific types of difficulty. These are listed below in descending order of frequency of appearance within a total sample of the 2855 problem statements¹ available at that time. Currently the entire 7,000 item list of problem statements is being evaluated so as to update the statistical characteristics of the array. However preliminary samples derived from portions of the list indicate that the percent of appearance of a problem type may tend to remain constant.

In the list below the first column contains the ranking of line items from 1 to 45, in descending order, by the number of mentions in the 23 partnering sessions. The number of mentions is shown in the second column. The problem type is shown in the third column, and the percentage of the total number of mentions is given after the problem type. The total number of mentions is greater than 2855 since most problem statements received multiple mentions.

01. 1146 - Job management - 40%
02. 0984 - Communicating with others - 35%
03. 0684 - Staff morale and attitudes 24%
04. 0593 - Personnel quality and problems - 21%
05. 0475 - Being a good on-site neighbor - 17%
06. 0467 - Timely action - 16%
07. 0396 - Planning and scheduling - 14%
08. 0371 - Organization, authority, and responsibility - 13%
09. 0288 - Work site conditions - 10%

¹Adapted from "Project Partnering for the Design and Construction Industry" by Ralph J. Stephenson, P.E. published by John Wiley and Sons, Inc.

10. 0268 - Revision processing - 9%
11. 0267 - Construction document quality - 9%
12. 0233 - Program conditions - 8%
13. 0205 - Submittal processing - 7%
14. 0166 - Issue, conflict, and problem resolution - 6%
15. 0166 - User group interaction - 6%
16. 0145 - Equipment and material problems - 5%
17. 0141 - Documents and documentation - 5%
18. 0133 - Decision making - 5%
19. 0125 - Procurement of materials and equipment - 4%
20. 0116 - Project cost structure - 4%
21. 0112 - Closing out the project - 4%
22. 0097 - Contract interpretation - 4%
23. 0097 - Quality management - 4%
24. 0095 - Payment processing - 3%
25. 0092 - Paper and administrative work - 3%
26. 0090 - Approval processes - 3%
27. 0088 - Being a good off-site neighbor - 3%
28. 0073 - Time growth - 3%
29. 0070 - Policies and procedures - 2%
30. 0069 - Inspecting and testing - 2%
31. 0069 - Staffing and personnel - 2%
32. 0064 - Cost growth - 2%
33. 0058 - Substitutions and alternates - 2%
34. 0052 - Maintaining regular project evaluations - 2%
35. 0052 - Safety - 2%
36. 0049 - Regulatory agency matters - 2%
37. 0022 - Training - 1%
38. 0022 - Value engineering - 1%
39. 0020 - Constructibility - 1%
40. 0014 - Labor conditions - 1%
41. 0014 - Legal matters - 1%
42. 0011 - Backcharges - 1%
43. 0011 - Financial matters - 1%
44. 0010 - Weather conditions - 1%
45. 0005 - Warranty conditions - 1%

2. Conflict Analysis

Conflict analysis consists of examining a potential or actual conflict, and then

determining the steps best taken to either resolve the conflict or to convert anticipated destructive conflict⁴ into positive conflict⁵. Addressing these potential problems and the methods by which they might be resolved is a sound first step toward assuring a high probability of project success. Determining the probability of a problem's occurrence and developing a systematic approach to its resolution will help greatly in understanding and effectively managing any conflict that might occur.

A critical link between a problem and a suitable solution is the project staff! Their participation is essential if a solution is to be found. A recommended starting point is to assume that most people are honest, concerned, desirous of challenge, enjoy attention, and will welcome help in times of turmoil and danger. Often, by adopting this simple outlook, a person who we feel is less than trustworthy or competent can be brought to a point where they become a valued member of the project team, and where their performance can be improved to a much greater degree than thought possible at first.

A base overview evaluation of the nature, capabilities and organization of the total project staff involved also offers a good starting point from which to build an effective project team. As an instance, we often can simply classify team individuals as being "dangerous" or "not dangerous." Thus at any specific time we can obtain a snapshot of the project staff that allows the experienced project leader to determine the degree of people-risk potential that poses a threat to the project. This, in turn will help the perceptive leader take preventive or reinforcing action to maximize the contribution made by those involved.

This technique is one that must be constantly refined by carefully observing people and how they behave in various situations. It is not recommended for extensive use by inexperienced practitioners. Too many false conclusions are apt to result if the observation are overly emotional and are based on whether you merely "like" or "don't like" an individual or group.

I suggest that as you meet, and work with people in related fields of generic construction you sort out the types that fall in different dangerous/not-dangerous classifications and keep written or mental notes of how participants with certain characteristics behave under conflict, and to what degree they can be trusted in both

⁴ Destructive conflict - Animosity or disagreement which results in lowering the potential for a person or organization to succeed.

⁵ Positive conflict - Hostility that is managed so that its resolution raises the potential for individuals or organizations to succeed at being excellent.

crisis situations and normal situations. Over a period of time you will find that your initial classification of an individual may require modification, or perhaps your analysis and the resulting action will be successful in assisting an individual to achieve improved performance within the constraints of the working system.

These fundamental steps can help move a project into a partnering mode in which the objective is to quickly shape a diverse group of people into a well functioning team in which each person's performance can be improved, and be made more predictable.

There are several other specific early actions that a good manager can take to help smooth out and resolve potentially destructive conflict. This should allow our analysis of potential conflict to be better used to set the stage for preparation and application of an effective project partnering charter.

There are eight early and essential actions to take to better resolve potential destructive conflict:

1. Understand the cause of the conflict.

Conflict is almost always caused by one or more events that trigger action - a misunderstood criticism, a poorly timed harsh word, an inadvertent delayed payment - all can create the reality or perception of deliberate injury. Remember that perception is reality. Learn and understand what is at the root of your conflict situation. It will often help you initiate a solution.

2. Put yourself in the other person's shoes.

Try to see the conflict as others, who are involved, see it; the client's accountant who holds a payment for an additional week to provide extra interest income for his firm may not realize the havoc he creates by the domino effect of the apparently innocent delay. Putting yourself in the accountant's position may give you an insight into the conflict solution which, under emotional stress, he had not recognized.

3. Understand the importance of resolution versus non resolution.

Lack of resolution in time-sensitive conflict situations such as occur in generic construction can cause delays that interfere with the flow of money on the project. Resolution sends an easily read signal to all members of the

project team that such delays cannot be tolerated, and encourages subsequent action without delay.

4. Become competent in the proper application of the technical and management tools of our profession.

Unfortunately, the quality of training and education among participants in the generic construction profession, is often lower than is needed to properly implement the project. Don't become a part of the problem through inattention to improving your abilities. The professional work force will be able, and will need, to work increasingly long times as life spans increase. Be certain you are technically and professionally equipped to work effectively in that added time that will probably be available to you.

5. Don't lie.

A lie can be magnified through retelling and repetition. What starts out as fib or a simple evasive half truth can easily grow into a monster falsehood that can delay work, misdirect efforts, and potentially ruin reputations. Good professionals and good managers do not need to use untruths to effectively direct the actions of others.

6. Thoroughly understand the obligations you have to society, and to your clients, your employer, and your peers.

The engineer, architect, and professional constructor has a very clearly defined hierarchy of responsibilities. The first is to protect the public health, welfare and safety; the second is to be loyal to their employer or clients, and the third is to be professional in their dealings with their peers.

7. Learn and try to understand everything you can about the generic construction business.

Our planning, design and construction practice has become so complex that often we are overwhelmed by the sheer magnitude of keeping up. However we have chosen this line of work and are obliged to maintain our competence in it, or to redirect our activities so those things we do are accomplished properly and professionally. Excellence carries responsibilities. Coping with conflict demands excellence.

8. Work to become effective in managing intersections of diverse interests impacting your projects.

Most generic construction programs today are so complicated that it takes a variety of talents and disciplines to properly achieve the goals and objectives set by the needs of the project and its sponsors. The roles and responsibilities of others on the project or in the business must be thoroughly understood by today's expert planner, designer or constructor. Lack of such understanding will make it very difficult to accomplish a project that satisfies everyone's profit objectives.

Our analysis of conflict would not be complete in the context of partnering without stepping back to an early point in the programming, design and contract award phases where many problems of the generic construction industry first see the light of day. Twenty four of these telltales are listed below at random. The list has been examined by hundreds of design and construction professionals, and has been refined to a point where I feel it can confidently be used by owners, programmers, planners, engineers, architects, contractors and vendors to help determine the probability of a well intentioned program turning into a problem job as it moves along the line of action as shown on the macro matrix x axis - Figure 1.

This list of characteristics is by no means complete, nor is it meant to imply that a job having these features will necessarily result in a claim prone job. It is, on the other hand, an honest effort to state certain unique job features that have been identified in projects that have ended in litigation, binding arbitration or other form of destructive conflict. The list is at random with no attempt to classify or characterize the features.⁶

Claim prone job characteristics may include:

01. Issuance of a large number of pre-bid addenda and instructions.
02. For subcontractors, a poor general contractor reputation if the project is being built by one prime.
03. For projects with separate primes, poor other prime contractor reputations.
04. Not-at-risk organizations involved in at-risk contractor procurement decisions.
05. Poor reputation of architect-engineer preparing the contract documents.
06. Excessive how-to-do-it emphasis in contract drawings and specifications.

⁶For more detail of claim prone job characteristics see "Project Partnering for the Design and Construction Industry - by Ralph J. Stephenson, P.E., published by John Wiley and Sons, Inc.

07. More than four to six prime contractors involved (applicable on normal building work only).
08. Excessive number of pre-selected suppliers for key material and equipment.
09. Heavy use specified for untried products and equipment.
10. A wide spread in proposal prices.
11. Large numbers of allowance items.
12. Excessively small tolerance specifications.
13. Poorly defined operational authority and responsibility patterns in the offices of the prime decision makers on the project.
14. Poor owner reputation.
15. Multi responsibility payment structures.
16. Inexperienced specialty contractors.
17. Large dollar amount or numbers of owner purchased equipment.
18. Project located in strike prone areas.
19. Project located in jurisdictionally sensitive areas.
20. Not-at-risk party involvement in establishing delivery commitments.
21. Excessive involvement of politically accountable owners, architect-engineers, contractors, and other key members of the project team.
22. Excessively long time periods to award contracts after a proposal has been submitted.
23. Unbalanced regulatory involvement in decisions affecting programming, design and construction.
24. Poor quality of facility operating staff.

3. Conflict Management

With the concepts of conflict causes and conflict analysis firmly in mind we can now approach the actual management of conflict.

A good first conflict management step that might be taken as the various planning, design and construction contracts are executed, is to insure that all parties recognize that their specific part of the project has inherent and potential problem characteristics. Good managers usually agree that recognition and prediction of these risk characteristics is essential to project success.

Next, the managers should be aware that threats to job success posed by lack of timely issue resolution may critically damage job integrity.

Lastly, the managers must agree on how a program of project damage prediction, potential project damage identification, conflict damage resolution, and dispute

resolution control are best accomplished within the organizational constraints that exist on most of today's design and construction projects. This is the essence of partnering.

Before we address specific partnering techniques we should develop a model to establish what constitutes program⁷ and project⁸ success.

Several years spent in evaluating excellent, good, fair, and just plain poor projects has lead me to select 38 measurement factors by which to determine how project participants perceive what constitutes success . The elements outlined below, if properly considered and judged for the value they add to the project, will help avoid destructive conflict by their proper management and will provide a good yardstick of how successful your job can be, or has been.

These elements of success include six project goals, seven profit types, nine project steps, the nature of six principal participants, and an understanding of the ten most likely problems to be encountered on a construction project.

If the parties to a planning, design and construction program recognize the nature, importance and impact of these 38 factors on project success, a major step will have been made toward their achievement and ultimate job success.

Item 1. Six major goals essential to design & construction project success - the client, owner & user must be assured upon completion of their project that:

01. The facility program and the facility design have met their needs, desires and wishes.
02. The planning, design and construction work on the project has been accomplished within the time and cost structure required and desired.
03. All relationships on the project have been maintained at a high technical and professional level, and have proven rewarding for those involved and affected.
04. The organizations and the people involved at all levels of work on the job

⁷Program - A major generic planning, design, construction, and operational construction effort composed of several individual projects.

⁸Project - A set of work actions having identifiable objectives, and a beginning and an end.

have realized a financial, professional and technical profit for themselves and their associates by being on the project.

05. The project has been closed out with little or no residual potential for major problems of maintenance or operation.

06. The entire process has been free of unresolved contested claims for additional money, additional time, damage payments, and of the potential for future financial demands after the job has been closed out.

Item 2. Seven types of profit that make up the total profit picture of a project - these must be optimized, and achieved for total project success.

01. Financial - an improvement in a money position.

02. Social - a gratifying experience contributing to society's well being.

03. Self actualization - a gain in personal non-financial satisfaction by contributive work.

04. Value system - reward gained by application of the values in which one believes.

05. Technical - acquisition of improved technical skills or technical information of value.

06. Enjoyment - personal enjoyment of a situation gained from involvement in it.

07. Educational - learning made possible by efforts exerted on the project.

Item 3. Nine major elements in the design & construction sequence - these are the steps in the line of action of a successful project. They often overlap and occasionally occupy a different position in the sequence. However they each must be done and each contributes in its own way to project success. Their proper execution is essential.

01. Conceive the basic project

Visualize and state the fundamental nature of the proposed project, what purpose it is to serve, and its base characteristics.

02. Prepare the program

Set down the physical characteristics of the total project in written and graphic form so as to be able to translate these characteristics into approval documents from which the full design can proceed.

03. Articulate the program for approval

Merge the concept, and the program into written and graphic construction language which can be reviewed and approved by the ultimate decision makers for full design.

04. Approve the basic project

Approve the concept, the program, and the merging of the two. This approval by those in authority initiates the full design and construction process.

05. Design the project

Prepare full contract documents for construction use.

06. Construct the project

Award construction contracts, build the project, and make it ready for turnover to the owner or user.

07. Turn over the project

Release the constructed project to the owner or user with full documentation needed to operate and maintain the completed environment.

08. Operate the project

Take over, run in, and make the new environment fully operational.

09. Maintain the project

Keep the new environment in proper operating condition by a well conceived and effectively managed maintenance effort.

Item 4. Six major participants in the design & construction process - each of the six participants have their own goals, objectives, and profit needs. Recognizing each party's desires, wants and wishes can often pave the way to a higher degree of success than if the parties maintain an adversarial position which blocks this recognition:

01. Conceiver - the ultimate decision making force behind the entire program
02. Translators - the parties that translate the project concept into construction documents
03. Constructors - those who build the facility
04. Operators - those who operate the completed facility
05. Regulators - those who help assure project adherence to the cause of public good
06. Users - those who occupy and use the facility for the purpose for which it is intended

Item 5. Ten major types of design & construction problems - avoiding the imposition of a conflict problem condition on a project is one of the simplest methods of all to insure the entire project team will work together effectively. The most common problem types include:

01. Constructive acceleration - An action by a party to the contract that forces more work to be done with no time extension, or the same amount of work and a shorter period of time in which to do it.
02. Constructive change - A construction action or inaction by a party to the contract that has the same effect as a written order.
03. Defective or deficient contract documents - Contract documents which do not adequately portray the true contract scope.
04. Delay - A situation, beyond the control and not the fault of a contract party, that causes a delay to the project.
05. Differing site condition - A situation in which the actual conditions at the site of a project differ from those represented on the contract documents, or from reasonable expectations of a site in that area.
06. Directed change - A legitimate change within the contract scope for which the owner is obligated to pay.

- 07. Impossibility of performance - A situation in which it is impossible to carry out the work within the contract requirements.
- 08. Maladministration - The interference of one contract party with another contract party's rights, that prevents the latter party from enjoying the benefits of least cost performance within the contract provisions.
- 09. Superior knowledge - The withholding of knowledge by one party to a contract from another party to the contract during the pre contract period, and that, subsequent to contract execution, adversely affects the second party's construction operations in matters of importance.
- 10. Termination - Dismissal of a party to the project contract for convenience or default.

Section 3 - Alternative Dispute Resolution

An effective system for resolving disputes.

(Resolution - To fix or settle on by deliberate choice)

Damaging disputes in the design and construction profession are an unstable element that have the potential to disrupt orderly processes such as good communications, logical action sequences, effective management and uninterrupted resource flow. The methods used to settle disputes and resolve conflicts change, as people's attitudes change. Financial and political market places especially, exert a heavy influence on how conflict is managed and controlled within the boundaries of our social and legal structure.

Design and construction dispute resolution through our formal legal system has become prohibitively expensive, time consuming and often destructive to the parties involved. It has also provided one of the root drives of the design and construction industry to change their traditional methods of settling industry-related disputes.

Solutions that are within the law and that work well in people-oriented situational conflicts as judged by design and construction professionals, are gaining in acceptance.

These root techniques are sometimes called alternative dispute methods (ADR.)^{*} They depend for their acceptance on the premise that within a suitable environment, design and construction professionals can identify and resolve problems by methods that best fit the concepts of their professional responsibility. This ADR methodology is a supplement to the structured legal processes, operating

^{*}Systems of resolving disputed construction claims outside the courtroom. Includes systems of resolving disputes in planning, design and construction by cooperative, internal, or third party assistance methods that are alternatives to conventional dispute resolution methods currently in common use. Conventional methods are usually considered to be litigation and binding arbitration.

within the law but through the interpretation of that body of law by design and construction professionals rather than legal professionals.

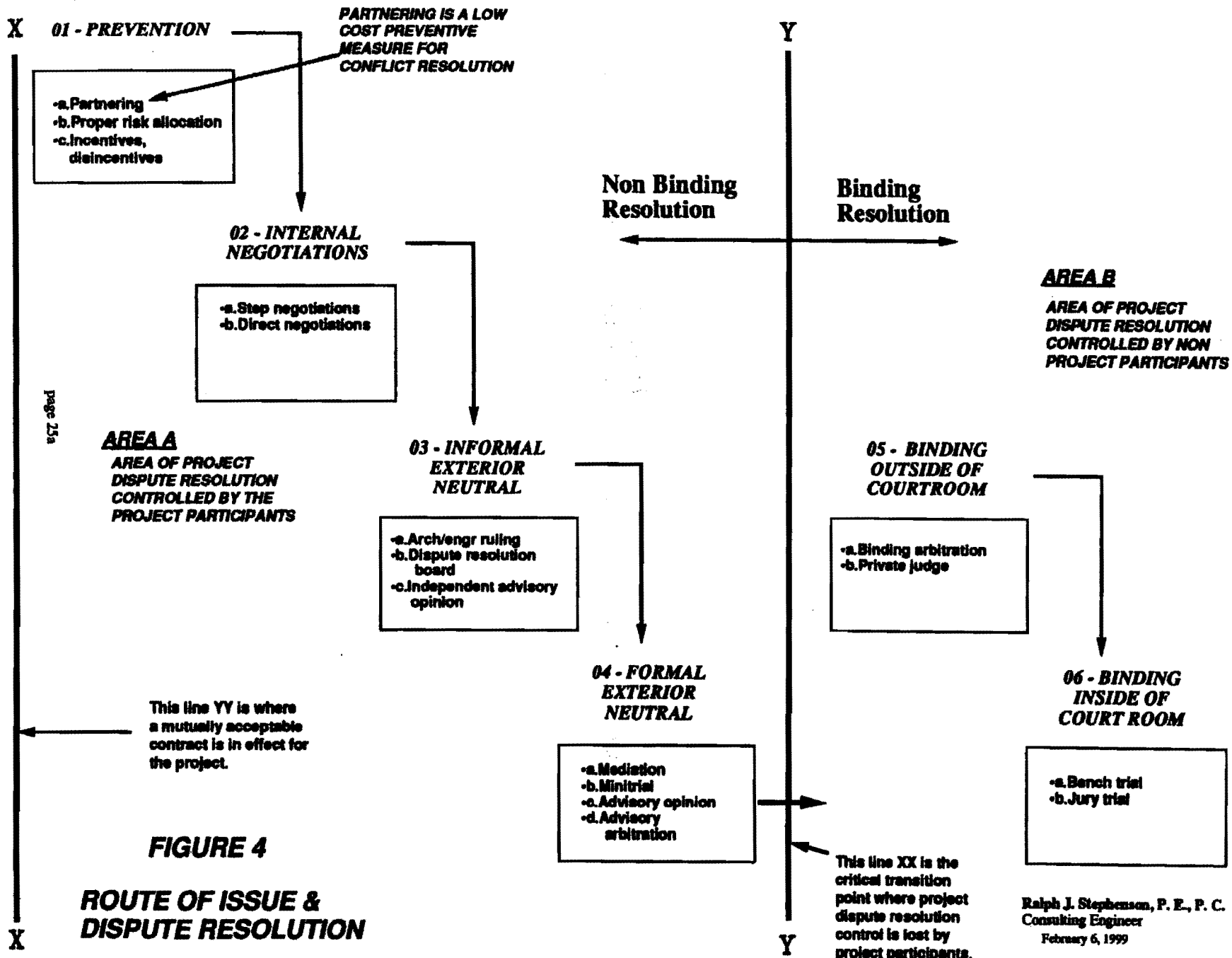
An alternative dispute techniques that has provided excellent preventive conflict resolution is partnering. It is one of the more popular systems and has seen frequent use over the past twenty years. There are, however, many other ADR forms available to the design and construction profession. During a recent count I made in conducting research in alternative dispute resolution (ADR) I found more than 30 systems that to some degree qualify as alternatives. Of these I recommend serious consideration be given to the twelve listed below.

01. Prevention Techniques
 - a. Partnering
 - b. Proper risk allocation
 - b. Incentives and disincentives
02. Internal Negotiations
 - a. Step negotiations
 - b. Direct negotiations
03. Informal Exterior Neutral
 - a. Architect-engineer of record ruling
 - b. Dispute resolution board
 - c. Independent neutral advisory opinion
04. Formal Exterior Neutral
 - a. Mediation
 - b. Minitrial
 - c. Advisory opinion
 - d. Advisory arbitration

A graphic representation of the 12 systems is shown in **Figure 4 - Route of Issue Dispute Resolution**. The characteristics of each system is summarized below.

01. Prevention

The prevention approach helps to predict and properly apply what project actions, if followed, might produces optimum results during design and construction implementation. Usually prevention methods are the least costly ADR techniques.



Ralph J. Stephenson, P. E., P. C.
Consulting Engineer
February 6, 1999

a. Partnering

Partnering works on the premise that preparing conflict and resolution models early in the job allows the project team to anticipate problems that might be encountered. It also allows the team to establish methods by which effective non-binding solutions might be applied. Partnering works best when the process stresses good faith agreements, emphasizes teamwork, and encourages good communications.

There is a sizable body of evidence that partnering offers one of the best starting point from which to build excellent project team relationships. Partnering also articulates clearly stated objectives and conflict resolution procedures that are prepared and accepted early in the project by the project team members becoming signatories to a morally binding agreement.

Even today the generic construction industry is still driven by the desire of its professional participants to abide by both their legal contract, and by pledging to behave in a certain set of ways consistent with their professional and technical beliefs. This is the fundamental strength of the partnering method.

The partnering technique is relatively inexpensive and can often be used in conjunction with other forms of alternative dispute resolution.

b. Proper risk allocation

This method is based on the premise that risk should be assigned to the party or parties that can best take, manage and control the risk. For example, risk should be allocated;

- to the owner in program preparation if the architect-engineer is retained only to prepare the construction contract documents. The owner then assumes the risk of preparing a program that meets the user's needs,
- to the architect-engineer in contract document preparation if the owner has formulated a well conceived and clearly stated program from which to prepare the documents,
- to the owner in selecting a construction delivery system where construction is expected to begin before design and construction documents are complete.

- to the contractor in construction of the project where full, well prepared, and checked construction documents are available prior to the start of construction.

Risk allocation that attempts to unfairly shift such risks to owners, architects, engineers, contractors or other members of the project team who are not able, or should not have to absorb the cost of these risks is ineffective since it;

- reduces meaningful competition,
- increases costs by forcing those at risk to increase contingency allowances,
- increases design and construction costs, and reduces effectiveness because of the high potential for expensive design and construction disputes.

c. Incentives - disincentives

Incentive-disincentive systems are based on including rewards in contract provisions so they provide extra benefits for excellent performance. Penalty provisions may also be included for flawed performance.

Incentive systems include such techniques as;

- Incentives and corresponding disincentives - used primarily for heavy construction projects, particularly highway work,
- Liquidated damages - primarily a disincentive system designed to recover lost profits due to time overruns caused by poor performance,
- Bonus benefits for good performance - usually coupled with disincentives or penalty provisions.

These systems must be exceptionally well balanced and even-handed to be accepted by project team members affected. Attempts to unbalance rewards and punishments are quickly recognized by practitioners, and tend to adversely affect project performance.

Incentive-disincentive methods also tend to attract participants who are willing to take additional risks above those that are normally encountered by merely, but properly, fulfilling contract obligations. This feature may work against

achieving high quality on the project.

The technique may be relatively inexpensive if the project is constructed on time. However if the incentive or disincentive is excessively high, costs of the project can quickly increase.

02. Internal negotiations

Internal negotiation methods encourage the parties involved to conduct project-internal negotiations to resolve job problems. This resolution systems requires consensus for its success It is relatively cost free.

There are two basic techniques used to guide internal negotiations -- step negotiations and direct negotiations. Each has unique distinguishing characteristics.

a. Step negotiations

These usually emphasize initiating resolution of a dispute at the originating level. Negotiations may then be moved in steps up the project organizational ladder until a level of management is reached that is able to resolve the conflict by a non-binding agreement. Normally a well defined time limit is allowed for the successive layers of management to seek a solution before the dispute is moved to the next higher levels of management.

When, and if negotiations reach an impasse and no solution has been agreed upon, the dispute is reevaluated and outside help is often sought from neutrals; or the conflict goes to a solution gained through a legally binding process.

b. Direct negotiations

This system involves negotiation of a dispute resolution that begins at the ultimate decision maker (UDM)¹⁰ level. Going to the ultimate decision maker as a first step in settling a conflict immediately moves the dispute past intermediate managers. Some of those by-passed may be perfectly capable of resolving the conflict if given an opportunity. They may resent having been overlooked in the

¹⁰Ultimate decision maker - The individual or group at the lowest management level that has the authority to make a final binding decision in any job related matter.

resolution process.

Immediately moving the dispute to the highest management levels does have the benefit of potential rapid and timely action. The caveat regarding such rapid and timely action is that top management involvement is forced into the disagreement early in the dispute and the ultimate clout that may be needed later at a critical time in the resolution process tends to be prematurely exerted, adversely impacting a fair solution for all.

03. Informal external neutral

Using external neutrals¹¹ requires that carefully selected professionals, familiar with generic construction serve as a informal resource to help resolve disputes. This technique may require some professional fees for the neutral but is still a relatively low cost non-binding ADR technique compared to formal external neutral methods, and the binding resolution techniques of litigation.

The three most commonly used informal external neutral systems are summarized below:

a. Architect-engineer of record rulings

The architect-engineer ruling may be respected even though it may not be necessarily binding. The ruling must be totally impartial to be fully accepted. In today's litigious climate the maintenance of an unbiased, neutral position by the member of the design team responsible for preparing the contract documents is nearly impossible. The opinion of the designer of record is seldom used except as an advisory guideline unless specified to the contrary. The cost is usually nominal and may be included as a part of the designer's professional service fee.

b. Dispute resolution board¹²

A dispute resolution board is composed of one or three qualified neutrals selected from outside the project, often at the beginning of the job. If the board is to consist of three members one member is selected by the owner and must be approved by the contractor. A second member is selected by the contractor and

¹¹ Neutral - An unbiased outside expert who is capable of objectively listening, analyzing and evaluating generic construction related demands or claims that are in dispute, and then rendering an opinion, decision, or recommendation as to their disposition.

¹² Dispute resolution board - See Attachment A - glossary of terms

must be approved by the owner: A third member is selected by the first two members. The third member selected usually acts as chair of the Board.

Members must have no conflict of interest and must conduct investigations and hearings on disputes and publish prompt opinions about the dispute. Members may act either as mediators or as non-binding arbitrators as required by the character of the dispute, and if requested by the disputants.

The dispute resolution board system has proven to be a highly effective ADR process. It is very flexible and allows written reports of the board's findings to be used as historical documents. These reports, if well done, can deter conflicts from escalating into situations requiring binding resolution, thus maintaining the spirit and strength of the non binding systems.

c. Independent advisory opinion

When using an advisory opinion, the disputants mutually agree upon the selection of a neutral expert who meets informally with the disputants, obtains information about the conflict from them, and renders a prediction as to the ultimate outcome of the conflict if it is not resolved promptly. The neutral usually acts as a mediator initially, and later, if needed, and if requested, as a neutral arbitrator.

04. Formal external neutral

In formal non-binding systems, external neutrals are selected to serve as formal dispute resolvers. The neutrals might be selected before a need for their involvement arises. This system may entail considerable expense and preparation, and might require legal advice be given the participants.

a. Mediation

Settlement conferences and informal hearings are conducted with the disputants by the selected third party neutral or neutrals. Solutions come from the disputants with encouragement by the neutral.

b. Minitrial

A private settlement hearing is usually initiated by agreement between the parties. Settlement decisions are often made by a small panel of participant

managers representing each disputant organization. The external neutral may preside over the panel's deliberations and guide in selection of a resolution method.

c. Advisory opinion

The neutral meets formally with both parties, obtains information from each, and renders a prediction as to the ultimate outcome if adjudicated. This allows the parties to each decide on the desired resolution method.

d. Advisory arbitration

An abbreviated hearing before a neutral expert. After the hearing the neutral issues a non binding advisory resolution, and renders a prediction as to ultimate outcome if taken to a binding solution.

Successful alternative dispute resolution using the techniques described above requires that each party to the dispute share several characteristics:

- A desire for a win - win result,
- People in charge who want a fair resolution,
- A willingness to use negotiation techniques acceptable to those involved,
- Knowledge of how to apply a resolution system that can produce a decision,
- A desire for a fair settlement,
- Understanding that unresolved conflict and disputes often requires a neutral view to be considered as a tool for positive change,
- A belief that if you aren't entitled to it don't try to get it!

Alternative dispute techniques are non binding and are designed to discourage taking disputes to forced resolution by binding arbitration, or by litigation. The advantages provided by a properly structured non binding system over a binding system includes:

- Lower costs incurred to resolve conflicts,
- Conflicts are settled more quickly,
- Knowledgeable professionals make the resolution decisions,
- Decision makers are close to the resolution process,
- The nature of the decisions rendered lessen the probability of appeal,
- Participants gain privacy in the resolution process,
- The probability of a fair resolution is increased by a more timely consideration

of the dispute. Timely consideration helps reduce time and cost growth of the claim,

- A non binding solution helps cross critical transition points¹³ by setting ground rules for the crossing.

If we examine the needs outlined above for successful project implementation it appears that one of the least costly, most timely, and most comprehensive system of dispute resolution is contained in the preventive systems, implemented early and by mutual consent of the parties. However, each of these preventive methods allows a dispute to be easily moved into a higher intensity of resolution as may be deemed appropriate.

The ADR preventive technique which many authorities feel best fits the requirements of successful early non binding resolution of disputes has been project partnering, coupled with proper risk allocation.

¹³Critical transition point - The point in a project delivery system at which the responsibility and authority for the work passes from one group to another group, for instance from the supportive group to the e'x'ecutive group.

Section 4 - The Partnering System

Its structure and its role in generic construction.

"Partnering is a way of achieving an optimum relationship between a customer and a supplier. It is a method of doing business in which a person's word is his or her bond and where people accept responsibility for their actions. Partnering is not a business contract but a recognition that every business contract includes an implied covenant of good faith."

How does a partnering system work?

There are three major components of partnering that help to keep conflicts and disputes under effective management control - the charter, the project evaluation system, and the issue resolution method.

The charter is a document prepared and agreed to in a team effort of the project partnering stakeholders. It contains a set of informal guidelines to achieving successful performance of non contract project matters. Guidelines are based on the assumption that the construction contract documents accurately depict the project to be built, that the estimates and commitments of cost are correct, and that the project team entrusted with the job is composed of competent and honest people.

These assumption are not always warranted, and where not warranted, present a risk that must be taken and managed well to assure the success of the program. In short, partnering is not management; it is a tool for the use of managers who wish to achieve success in their work.

A typical public works charter is shown below. It was prepared for a critical Wisconsin State Highway Renovation program in the small urban community of Whitewater. The highway serves the heart of the community and had seen years of hard and continuous use. Repairs to the right of way were expected to be difficult due to the heavy traffic load carried by the roadway.

The project team met soon after award of the contract and identified some of the

many problems they anticipated as a result of their extensive highway construction experience on similar projects. Several of their concerns were incorporated by the team in the following charter they wrote for the project.

West Main Street Reconstruction Program
Whitewater, Wisconsin - Construction Partnering Charter

1. Project Mission

We, the West Main Street Reconstruction Team, commit to maintain effective communications and cooperation while providing a safe, quality project, in a profitable and timely manner, with minimal negative impacts to all stakeholders.

2. Project Objectives

All partners on the West Main Street Reconstruction Team shall endeavor to;

1. encourage the participation of all parties at all project levels in the partnering process and the partnering spirit.
2. maintain an adequate management and work force to fulfill contract commitments.
3. *prepare and publish a construction traffic and parking plan. (task force drawn from stakeholders).
4. *periodically prepare and provide a current anticipated construction traffic and parking plan to area businesses and the local community. (Chamber of Commerce from charter objective #3, the job traffic and parking plan).
5. provide reasonable access to needed work areas in accordance with the current project schedule.
6. carefully evaluate and be sensitive to the impact that construction activities may have on the environmental integrity, and on the concerns of the project neighbors.
7. identify, accurately communicate, and document potential job problems...be proactive.

8. maintain open lines of communication.
9. provide timely communications, responses, decisions...and be available.
10. *prepare, distribute and regularly monitor and discuss, with utility contractor input, the master project schedule, and update schedules as required. (Mann and WisDOT with other stakeholders)
11. adhere to the current master construction schedule in effect on the project.
12. communicate clearly, accurately and in a timely manner through appropriate project channels.
13. maintain a close relationship between expectations and reality.
14. empower on-site personnel to make decisions with the objective of shortening lines of communications, thus expediting responses and decision making.
15. make required decisions in a timely manner and stand by the agreements you have made.
16. promptly and accurately prepare, submit, and process all periodic and final payment requests.
17. *prepare, publish, and keep current a list of communication, responsibility, and authority channels. (WisDOT, in cooperation with the stakeholders)
18. recognize that project conditions and decisions affect other partners in achieving the overall project mission.
19. maintain a clean, safe, accessible , and well-planned work site.
20. *prepare and publish an issue resolution policy which stresses the timely resolution of conflict at the originating or lowest possible management level and seeks to avoid litigation. (stakeholder task force)
21. establish a trustful work environment with other partners by taking pride in our work, respecting the ideas and work of others, treating others as we would have them treat us, and accepting responsibility for damage to other's work.

22. *prepare, publish, and implement a partnering evaluation system by which the effectiveness of the system is regularly monitored. (stakeholders task force)
23. provide adequate documentation and prepare, package, and process submittals in a timely, fair, and considerate manner, consistent with the priorities of the contractors and the WisDOT.
24. insure that each of their management team members is fully aware of the requirements of the project.
25. maintain high job morale and cooperative attitudes among all project participants.
26. anticipate and communicate the conditions and disruptive circumstances that may adversely affect businesses and the local community.
27. have fun....and celebrate successes along the way!

*indicates work to be done by designated member(s) of project team

This simply written charter document outlining elementary non-contract behavior on the project helped provide guidelines for what proved to be an outstanding highway reconstruction project for the State of Wisconsin, the city of Whitewater and the designers and contractors on the job. The charter was signed by all 22 stakeholders¹⁴ who participated in the partnering meeting. Their signing indicated a moral commitment to the objectives contained and helped bring a very complex and potentially damaging project through to a successful completion for all concerned, including the businesses and schools, and the residents who worked and lived, on the renovated street.

A charter is normally written and signed by the stakeholders in an intensive working conference lasting one or two days, depending upon the scope of partnering work to be accomplished. During the conference the stakeholders identify what problems they might encounter on the project for which the charter is being written. This is done by having the stakeholders ask themselves four basic

¹⁴ Stakeholders - the project parties potentially put at risk during the execution of a planning, design, or construction contract. Stakeholders are also those who participate in writing a partnering charter and are a signatory to the charter.

questions during the partnering workshops¹⁵.

1. What problems do others cause us on projects of this type?
2. What problems do we cause others on projects of this type?
3. What is the single most important goal to be achieved by my organization and me by this project being successfully completed?
4. In light of our answers to questions 1, 2 and 3 what can we, the stakeholders, do to encourage good relations and excellent performance on this project?

As potential problems are identified by the stakeholders based on their knowledge and experience, the risks these problems pose to project success for each stakeholder are laid on the table and carefully evaluated as to their degree of threat to each party affected by the problem.

A word of caution!

There are times and projects where partnering may have a low potential for adding value to the job. In these cases, to force the use of partnering or other preventive ADR systems might have a negative effect on the project and could actually lower the probability of success. Fortunately such cases are infrequent and the projects on which they occur are easily identified.

Some telltale characteristics which might mark a project as not suited for the use of partnering are listed below;

01. where the parties intend to pay lip service only to the partnering effort,
02. where individuals in key technical or management positions choose to resist intelligent discussion and fair decision making,
03. where early commitments by the owner have made good faith contract relationships difficult or impossible to maintain,
04. where construction contracts are let in unplanned bid packages as the documents are being released for field use,

¹⁵ Paraphrased from a set of questions originally proposed in the Associated General Contractor publication "Partnering - A Concept for Success."

05. where several parties to the contract prefer to resolve disputes by contested claiming & binding resolution,
06. where poor contract documents are made the basis of the partnering effort,
07. where excessive, one sided conditions are placed on sub contractors by prime contractors,
08. where unfair or obscure payment processing systems are specified and enforced,
09. where risks have been poorly defined and unfairly allocated.

In cases such as these it should be noted that these characteristics might also foretell the nature of future difficulties in the actual design and construction program.

A responsible manager with the owner, the architect-engineer, or the contractor should take several preliminary steps to establish the need for a partnering effort and determine how best to implement the planned program actions. Early partnering planning actions to be taken include:

01. Determine what benefits partnering might bring to the project.
02. Clearly define the mission¹⁶ and goals¹⁷ of the partnering session.
03. Match the partnering effort to the current status of the project.
04. Obtain the support of your management in the partnering efforts.
05. Select and invite appropriate participants to the charter writing meeting.
06. Prepare and publish a detailed agenda for the partnering meeting.

A brief description of the actions included in each of the six steps above is

¹⁶ Mission - A statement of the most important result to be achieved by the partnering session being successfully completed.

¹⁷ Goals - unquantified desires of an organization or individual expressed without time or other resources assigned.

summarized below:

01. Determine what benefits partnering might bring to your project.

Each generic construction project has different physical, management and political attributes that determine if partnering will have a good, bad or indifferent effect on the project. If the team has many of the desirable attributes defined on page 31 in Section Three, and very few of the negative telltales listed on page 37 and 38 of Section Four, the chances of partnering success are high. Although partnering is designed to improve project performance somewhat independently of external influences, the presence of elements that contribute to success should always be determined and reinforced.

Defining the results to be expected from implementing a partnering system will help determine the benefits of using the system. We touched briefly on defining partnering results to be expected in the introduction to this paper. However a few additional examples of benefits might strengthen an understanding of the positive features of partnering.

Partnering is designed to:

- a. Encourage project team members to understand how each think about the project work to be done and the approach they feel should be taken by the project team.
- b. Provide a decision-making approach that empowers all stakeholders to participate in the decision-making process.
- c. Identify the roles, responsibilities and authority of each of the stakeholders that clearly identifies their obligations and duties on the project within their contract responsibilities.
- d. Prepare and implement a method by which conflicts and contested claims are resolved to the greatest degree possible at the originating level and are thought through well by those directly involved.
- e. Assist each participant to maintain an understanding of the other person's viewpoint in major project matters.
- f. Encourage stakeholders to communicate in the clearest and most easily

understood fashion on all project matters.

g. Provide a methodology by which conflict matters and resolution are properly documented.

h. Identify and clarify procedures to be followed in non-contract management processes that are to be applied to the execution of the contract provisions.

02. Clearly define the mission and goals of the partnering session

The mission and goals of a partnering effort are derived in part from the benefits that are expected from using partnering systems on a project. The mission is a statement of the most important result to be achieved by the project being successfully completed. Goals are the unquantified desires of an organization or individual expressed without time or other resources assigned.

Assume we work for Plaza Development, Inc., a private developer, and are about to embark on a design and construct project for our account. The project is a new office building, the High Pointe Center, on an urban site in the heart of the city. We are presently establishing the benefits of partnering early in the design period during which the owner, the design team of record, and a not-at-risk construction consultant are deeply involved in planning the project, each contributing their own expert knowledge to the design of the facility.

The partnering mission of this team has been defined as follows:

"to design and implement a partnering system that will optimize the probability of successfully planning, designing and constructing the High Pointe Center so as to provide an appropriate and balanced profit¹⁸ for the city, the project team and the investors."

From this mission the project management moved to a definition of the major partnering goal as being;

"to prepare and implement the High Pointe Center partnering system so as to provide the entire project team a set of guidelines for their non-contract behavior. These guidelines should enhance individual contract performance and assist the entire team to achieve their defined partnering mission."

¹⁸See the Introduction and Attachment A- Glossary, for a definition and discussion of profit.

03. Match the partnering effort to the current status of the project

The High Pointe Center is to be developed in four prime phases, the launch phase, the program¹⁹ and design phase, the construction phase and the leasing and occupancy phase.

The launch phase is concerned primarily with locating and nurturing development opportunities or assets. The launch group works on the leading edge of the total program, and their efforts are usually headed by the top management of the development firm. The launch group organization is often relatively unstructured, and much of the front end work is achieved through the individual efforts of the upper management staff. Unless there is to be heavy concurrent interaction with the programming, design and construction production groups a project partnering effort may not be justified in this phase of the work.

The program and design phase is where several team-based efforts are needed to successfully achieve a buildable project. In the broad picture the program and design phases generally are accomplished by a group of experts that will work together bridging the gap between the launch period where the project is conceived and the start of construction where the majority of the funds for the project will actually be spent. Those involved in this phase will probably be working together for a considerable length of time, carrying the project through the research, validating, approval, financing, programming, design development and construction document stages of the work.

The construction phase is the period in which the project is actually built. Construction is usually concurrent with an intense leasing effort. However, the project teams involved in each of these two phases might be considerably different from each other while still needing to interact to achieve a full tenant build-out of the leased spaces.

The fourth phase, leasing and occupancy, usually signals the start of income flow used to retire the outstanding indebtedness. As mentioned above many of the actions during the leasing program are accomplished with the involvement of the parties responsible for design and construction. However those involved in

¹⁹ Program - A narrative oriented statement of the needs and character of the proposed operation, the requirements of the user and owner, the nature of the environment to be planned, designed and built, and the corresponding characteristics of the space that will satisfy these requirements.

each of these phases will generally have different goals and objectives. It is considered best to keep leasing operations running on a separate but parallel track with design and construction.

Analyzing the above description of the project phases, can help the responsible project manager and executive make decisions relative to when partnering should be implemented, who should attend the partnering meetings, and what the nature of the partnering effort should be. An example of a matrix tool to help identify who should be involved is shown in Figure 5 - Partnering Matrix.

In this matrix the major participants are shown in column #1, those primarily involved in the various phases of the work are shown in columns #2, 3, 4 and 5. The columns for the phases of work where it appears desirable to prepare and implement a partnering system are shown shaded.

Notice column #2 is not shaded since a relatively small number of key people are involved who interact with one another on a somewhat individual basis. Therefore, top management made the decision that during this phase, partnering would not necessarily contribute to helping this small group work together more effectively than they could individually.

When the project moves into the heavy operational phases shown in columns 3, 4 and 5, management decided, because of the complex contract interrelations between the participants, that a partnering effort would assist all stakeholders to achieve a better group effort.

04. Obtain management support of your partnering efforts.

A quick glance at the partnering matrix in Figure 5 shows that top executive involvement is not anticipated in all phases. Nevertheless executive interest in achieving a good team partnering effort is essential. Upper management support lends credibility to the partnering efforts of middle and lower managers on the project during all phases of the program.

This interest, expressed by support of a well conceived and executed partnering effort will send a message to the entire team that Plaza Development, Inc. wants and expects quality performance on this project. Furthermore, the message says, they are willing to pay for the extra effort by sponsoring the partnering meetings, the periodic evaluations, and for expeditious resolution of potentially destructive conflicts during the project.

Figure 5 - PARTNERING MATRIX

col 1
participants

col 2
launch
phase

col 3
programming
& design

col 4
const

col 5
leasing, tenant
work &
occupancy

1	High Point Plaza, Inc., Chief Operating Officer	X	X		X
2	High Point Plaza, Inc., Vice President Operations	X	X	X	X
3	High Point Plaza, Inc., Vice President Finance	X	X		X
4	High Point Plaza, Inc., Vice President Property Management	X	X		X
5	Teagarden and Associates - Architects & Engineers of record		X	X	X
6	Linden & Associates - Mechanical & Electrical Engineers of record		X	X	X
7	Rankin & Associates - Structural Engineers of record		X	X	
8	Urban Planners, Inc. - Land Planning Consultants	X	X		
9	Oakland & Deere - Construction Consultants during launch, programming and design phases	X	X		
10	Oakland & Deere - General Contractors during construction & tenant work phase			X	X
11	Iambik Geotechnical, Inc. - Geotechnical Consultants	X	X	X	
12	Tooling Mechanical - Mechanical Contractors			X	X
13	Powers Electrical - Electrical Contractors			X	X
14	Millwork, Inc. - Fixtures, furnishings and equipment contractor - tenant work phase			X	X
15	Subcontractors for base building construction phase			X	
16	Subcontractors for tenant work construction phase				X

- X shows points where participant should be involved in partnering effort, if partnering is to be used.
 • Shaded columns indicate phases of work where the use of partnering could be of benefit.

05. Select and invite appropriate participants to the charter writing meeting.

The Partnering Matrix identifies the key organizations which will be working on the project during each phase of the entire project. From this broad company identification, the participants expected to attend to represent each organization can be selected. They should be considered the key participants expected to make significant contributions to the partnering meeting. A good way of checking the appropriateness of the proposed attendance list is to ask

"Can all critical project questions be answered, and can all major project decisions be made by members of the group selected to attend?"

If the answer is "no" then those who can fill these roles should be added to the list. Those attending the partnering session must be able to make a significant contribution toward achieving the partnering mission and goal defined above.

06. Prepare and publish a detailed agenda of the partnering meeting.

A very specific and well organized agenda should be provided well ahead of the meeting date to all those invited to a partnering meeting. The agenda should be sent with a letter from a top operating executive of the sponsoring organization, inviting the recipient to attend the partnering session.

The sponsor is that person or organization that strongly supports or champions the partnering effort and assumes responsibility for its implementation. Usually the sponsor is an individual or a key staff member of the organization that has taken the leadership in conceiving the project and providing the wherewithal to drive the entire program on to a successful conclusion.

An agenda for a project partnering meeting should provide enough detail so all those attending know what is expected of them in the session. Attachment E contains a sample invitation letter and agenda derived from an actual project partnering meeting invitation. The project is a new Theater Arts Building to be located on the Francisco University Campus in Indigo, South Dakota. The letter is an invitation to a prime supplier of construction services and equipment, the food service contractor, Gabrielse and Associates, from the President of Francisco University, Dr. Franklin A. Miller.

Once the invitation letters have been sent, the project team is well on its way preparing the partnering charter.

Section 5 - Writing the Partnering Charter

How do the elements of partnering get translated into an action plan?

The actual process of writing a charter is one of the most interesting exercises in small group dynamics you are apt to encounter at any phase of a design and construction project. It has all the drama and excitement of the construction process short of performing the actual work in the field.

The sponsoring organizations or individuals are usually responsible for making arrangements for the meeting, the coffee breaks, the luncheon, and the other details that are essential to a good program. This portion of the NSPE paper will discuss of some of the critical elements that help participants prepare a good charter system.

There are several identifiable factors that contribute to an effective charter meeting. Each is critical to making the partnering session successful in the sense that the meeting achieves its stated mission and objectives.

The quality of the meeting accommodations plays a large role in determining whether or not the partnering meeting will be well received. Much of the partnering meeting time will be spent in listening and participative workshops. Because of the importance of the meeting room environment it is appropriate to provide a few basic suggestions for the meeting room arrangements.

The room should be well lit and ventilated, and large enough to accommodate participants comfortably in two types of sessions - classroom style with writing space for full group meetings, and small breakout group table groups at round tables seating from 4 to 7 people. The classroom style area is best located at the front of the room; the breakout table area is best situated along the sides, in the back, or in a

separate but adjacent room. For the breakout sessions it is desirable to have wall space available upon which to tape the workshop sheets prepared by participants at each table.

Each breakout table group should be provided with a flip chart on an easel and a red and a black felt marking pen. Usually the conference center or the hotel will have these materials in stock. Notes on the flip charts should be written in black for maximum visibility. Red should be reserved for emphasis punctuation and notes requiring special attention. Each table should have several 8 1/2" X 11" lined note paper pads available along with pencils with erasers. A pitcher of ice water and clean water glasses on the table is a welcome treat.

To assist in the identification of table personnel it is desirable to have a letter table designation on a card stand at the middle of the table. Usually the number of people attending a partnering meeting will range from 20 to 40. The recommended number of people at each breakout table should be kept at five or under. This means that there will be from 4 to 8 tables. Identification of table groups is helped considerably by the table designation cards.

The chair and leader of the meeting, with the help of the principal organizations represented, should designate which participants are to be seated at each table. Table team members should be those who have common interests in the project so as to encourage constructive dialogue in the workshops. This arrangement is to keep the discussions focussed on problem identification and problem solving. Airing disagreements among the entire group is best done in later combined sessions rather than in the idea-producing table work groups.

At the front of the room facing the attendees should be a large screen suited to the needs of the chair. I have found that a 6' X 6' screen works very well when speaking to a group of 20 to 40 people. For projection purposes I recommend the discussion leader use a conventional overhead transparency projector along with an LCD overhead projector hard wired into a computer for work on the screen. The LCD projector and computer, of course, requires the chair or the sponsor to have the equipment and knowledge to use the equipment properly. It is not absolutely necessary to use a projected computer image but the system does provide a rapid and easy way to display notes taken during the workshops and combined sessions. Several regular tables should also be placed in the front of the room to provide the chair and other speakers with working space during the session.

Of great importance during the meetings is prompt duplication of workshop notes.

These notes are used as a reference in preparing the partnering charter during the late morning and afternoon session. Duplicating equipment should be capable of reproducing letter size documents quickly and with reasonably good quality. Often the sponsor will bring an office copier to the meetings and the copying can be done in the meeting room. In other instances the hotel or conference center provides duplication services for a small fee. It is important that copies of key documents produced in the meetings be made quickly since the copies will be used as they are generated.

From time-to-time there will arise a need to refer to the current set of contract documents. Having a copy of these in the room, along with supplemental renderings or graphics and perhaps a sketch model, is a convenience that is appreciated by those stakeholders not yet totally familiar with the project.

Other items usually provided by the sponsors of the partnering effort are a pre meeting coffee hour, usually from 7:15 to 8:00 A. M., and coffee breaks at mid morning and mid afternoon. At most partnering sessions the sponsor also provides a modest luncheon for the participants from 12:00 to 1:00 P. M.

I strongly suggest that each stakeholder upon signing the charter at the end of the day be given a small, inexpensive memento of their work in the session. These might range from suitably imprinted coffee mugs to more expensive items such as tape measures or fountain pens. Partnering work is strenuous and the memento is a small reward to celebrate successful completion and signing of the charter. The gift also helps create a team feeling at the close of the charter day.

Charter meetings are usually best chaired by outside design and construction experts who have no day-to-day involvement in the project for which the charter is being written. The chairman should prepare an agenda that accompanies the initial invitation letter, and is republished in a work book at the meeting to serve as a guideline for the workshop sessions to be held.

I recommend that the chair or group leader provide those attending with a small collection of partnering information and background data to serve as a resource for each attendee.

The workbook might contain the following information:

- a title sheet showing the name of the project, its location, and the date and time of the meeting,

- a table of contents,
- a meeting agenda,
- partnering reference material to serve as informational guidelines for the stakeholders,
- sample problem statements,
- sample mission statements,
- sample charter statements to use as guides to formatting the project charter,
- sample issue resolution procedures,
- sample of charter performance evaluation guidelines.

The leader of the partnering meeting is a key to successful partnering meetings. The leader is sometimes called the chair, the chairman or chairwoman – other times he or she is called a facilitator, an expediter or very simply, a discussion leader. Whatever the title, this individual must provide leadership and experience to the partnering group so they maintain their sense of humor, direction and balance as they write the charter.

The chair accomplishes this; first -- by knowing the planning, design and construction business; second -- by providing the reference tools through which the least experienced person in the meeting can contribute to producing an excellent charter; third -- by constantly keeping the participant's eyes on the goal of the charter meeting - to produce and sign a working charter in a one day seminar and workshop; and; fourth -- by providing the common sense, leadership and drive to motivate stakeholders to follow up the partnering meeting by preparing and implementing a partnering evaluation system and an issue resolution system.

A brief review of the agenda steps that lead to these results is given below using the invitation letter from Dr. Franklin Miller, President of Francisco University for an outline guide.

07:15 a.m. to 08:00 a.m. - Coffee and rolls for attendees.

This is a good start for the day's work. Often we forget how seldom men and women in the generic construction profession get together socially to compare notes and converse in non-adversarial situations. This early coffee period sets the tone for the day -- a congenial time in which often some of the problems of the project are discussed and resolved before the partnering process actually begins. The coffee time also allows space for some informal conversation with friends before the business day begins.

As the meeting starts, the participants should be requested to sign in and are given a copy of the partnering workbook. This workbook is to be used in the sessions as the detailed discussion of partnering begins and the participants break into their table groups for the workshops.

08:00 a.m. to 08:15 a.m. - Introduction of participants - By principals for key stakeholder organizations.

Each person at a partnering meeting is important. The leader of the day's work probably does not know all the participants, and quite often those attending do not know all the others in the conference. If the group is large an introduction of the attendees by a principal on the project can be very effective in giving the person being introduced a psychological boost by seeing that someone has an interest in who he or she is.

08:15 a.m. to 08:40 a.m. - Brief review of project status and characteristics - by project staff.

Not all parties attending a partnering meeting will be familiar with the complete project. In fact, not understanding other people's responsibilities and roles on the job are often mentioned as reasons for breakdowns in communications, and for the occurrence of other dysfunctions in the design and construction process. An interesting, concise and accurate word picture of the project creates a good word image of the facility and stimulates the interest of the group in the work of disciplines other than their own.

08:40 a.m. to 09:15 a.m. - Introduction to partnering, partnering methods, and workshops - Robert K. Litton, P. E., Meeting Chair.

The partnering process is a deceptively simple hands-on system. If it is described well, early in the meeting the attendees will be better able to understand what is expected of them, and participate more meaningfully and enthusiastically in the workshops that are the heart of partnering. The chair should prepare this introductory material carefully and thoroughly. It should be presented both verbally and graphically through interesting and easily understood screen projections.

Graphic screen projections are produced by several different techniques. Each meeting leader has his or her own methods, but most use an overhead transparency projector on which can be shown easily produced transparencies

of the workbook material. Others use a computer connected into an LCD projector which displays a computer produced image on the screen. The cost of LCD projectors has dropped to a point where many conference leaders are using them, not only to make presentations, but to record the discussion material. As the meeting material is being written, the notes are projected directly on the screen. This technique, called technography,²⁰ provides a printable record, and allows immediate comments and corrections to be made by the group as they see the material being typed and projected on the screen.

If the leader is able to use both the overhead transparency technique and the computer generated projection technique, the combination makes an extremely powerful and impressive presentation tool.

09:15 a.m. to 09:25 a.m. - Identify teams for break-out workshops.

Strong efforts should be made to place those with similar interests and disciplines at the tables with others having these same interests. During the program planning period the responses to the meeting invitations will have provided a reasonably complete list of those expected to attend. The conference chair, Mr. Litton, will have been able to allocate table numbers to each of the expected participants from this list. However last minute changes to the attendee roster should be noted and the table assignments updated to provide an optimum mix of disciplines with similar interests at each table.

Usually the objective of the table assignments is to bring together those people with similar interests and concerns. This then allows each table group to proceed with their discussions in a positive, constructive manner. Without this congruence of thought the attendees tend to break into argumentative groups defending their beliefs or attacking those of others.

Conflict may be productive at later points in the meeting when most of the potential problem areas of the job have been identified by the team members and discovery of solutions initiated. However at the start of Workshop #1 the table discussions should be able to proceed with little disagreement over the content of the attendee workshop findings.

²⁰Technography - the action of preparing meeting notes and related material on electronic equipment as the notes and materials are generated. Often the recorded material is projected on a screen for viewing by those in the meeting.

A suggested table makeup that has worked well in my experience is to allocate the members by their discipline relation to other disciplines. For instance mechanical and electrical contractors have many similar concerns because of the close interrelation of their field work. Other shared interests are found among structural trades and close in trades as well as between interior finish trades such as dry wall, plaster and acoustic contractors. Often the same type of interrelations exist between the design disciplines. Engineers are best put together at tables with other engineering practitioners. Usually the architect group is best put at a single table and not mixed with the owner or the engineering groups.

Each project has its own special characteristics and will require special attention from the chair, usually in consultation with the leaders of the various disciplines.

Some general guidelines in setting table makeup include the following:

- Try not to mix the architect-engineering disciplines with the owner. This combination tends to arouse suspicion among lead construction teams on the project such as the general contractor and other prime contractors.
- Keep heavy rough trades and their respective design groups separate from the lighter interior finish trades and their designers.
- Do not intermingle design disciplines such as the architectural group with corresponding construction disciplines unless a interrelation exists because of some special characteristic of the job. Designers and constructors do not traditionally agree on design features, nor on the means and methods of constructing them. Avoid this argument in the early workshop sessions.
- Try to get a good mix of the owner's project representatives with the facility users not necessarily involved in the detailed design and construction. The dialogue at the tables often will tend to work out problems that neither party had considered until they talked to one another in the partnering workshops.
- When guests such as utility company representatives, association managers, financial advisors, bankers, media representatives and other

observers attend, try to seat them throughout the room at the various working discipline table groups.

09:25 a.m. to 10:00 a.m. - Break out workshops - comments to be recorded by team secretaries on flip charts.

- **Workshop #1** - "What actions do others take during design, construction and move-in that create problems for us on projects like the Francisco Theater Arts Building program?"

When the groups have moved to their respective tables they should introduce themselves and then select a table leader to help pull the discussions together. They should also select a table secretary who can print legibly to record flip chart notes.

The groups should next address the key question "What actions do others take during design, construction and move-in that create problems for us on projects like the Francisco Theater Arts Building program?"

This is the first workshop subject and should be addressed intently by listing at random the problems that are caused to the people at the table by others. Occasionally table members will identify who it is that they believe cause the problem. I recommend this process be allowed to proceed so long as it does not become a destructive commentary.

As a starting point to stimulate thinking about the types of problems encountered, team members might consider the following alphabetical listing of 21 subjects within which many design and construction problems are found to originate.

- A. Approval Processes
- B. Being A Good Off/On Site Neighbor
- C. Closing Out the Project
- D. Communicating With Others
- E. Decision Making
- F. Documents and Documentation
- G. Financial Matters
- H. Inspection and Testing
- I. Issue, Conflict, and Problem Resolution
- J. Job Management

- K. Legal Matters
- L. Maintaining Regular Project Evaluations
- M. Organization, Authority, and Responsibility
- N. Planning and Scheduling
- O. Payment Processing
- P. Personnel Quality and Problems
- Q. Regulatory Agency Matters
- R. Revision Processing
- S. Staff Morale and Attitudes
- T. Submittal Processing
- U. Work-site Conditions

As the flip chart sheets are filled with numbered problem statements, they should be identified by placing the workshop number, the team number, the date and the flip chart page number on the newsprint sheet. They should then be taped to the wall for ease of reference by the teams that prepared them and others.

During the workshop the conference leader or a stenographic helper should begin typing or hand copying the flip chart contents. After they are hand written or typed the notes can then be printed and distributed to all attendees. Each participant should be provided a complete set of problem statement notes for his or her use in succeeding workshops and discussion sessions.

10:00 a.m. to 10:15 a.m. - Coffee break

A refreshment break is usually welcomed by the attendees at this point, although if table work is going well the leader might wish to encourage teams to take a working break. This allows the attendees to continue work throughout the coffee break.

10:15 a.m. to 11:15 a.m. - Complete Workshop #1 and #2 discussions

- **Workshop #2 - "What actions do we take during design, construction and move-in that create problems for others on projects like the Francisco Theater Arts Building program?"**

Workshop #2 should be started as soon as the problem statements in Workshop #1 have slowed to a trickle, or before. Additions can always be made later to the flip chart notes.

Workshop #2 is interesting in that it normally produces about one half the number of comments produced in Workshop #1, and takes about one half the time before the teams run out of ideas. As with Workshop #1 the flip chart sheets should be displayed on the walls as they are completed. They are hand copied or typed and reproduced just as were the Workshop #1 notes. All problem notes should be distributed to individual attendees as soon as possible after Workshop #2 is completed.

In the time remaining after Workshops, #1 and #2 are completed, each team should verbally review for the entire group within time constraints imposed by the agenda, the flip chart problem statements generated by their table work. Questions and clarifications should be allowed during this post workshop briefing.

It is wise not to permit editorializing or major disagreements to disrupt the presentation of a point of view. The objective of the presentations is to make certain all participants are clear on why the problem statement was written, not to argue if it is a valid problem statement. That it was felt to be valid is proven by the team including it in their set of problems presented.

Workshop #2 is very important to the partnering meeting since it is here that a merging of problems identified in Workshop #1 and #2 begin. As this merging continues the group will become less and less aware of the origin of the problem statement, and instead, focus on finding solutions to the problem.

11:15 a.m. to 11:30 a.m. - Prepare individual mission statements

- **Workshop #3** - "What is the single most important goal to be achieved for my organization and me by the Francisco Theater Arts Building being successfully completed?"

In this session the discussion leader requests that each stakeholder prepare their personal and individual response to the above question. The answer then states the mission of each attendee. Answers are collected and typed or hand copied into the pool of material from Workshops #1 and #2.

This total collection is called Newspaper #1 for reference ease. Newspaper #1 is printed in its entirety and distributed to each person at the meeting. Timely

preparation and distribution of Newspaper #1 is critical since the material is used as the basis for the remainder of the day's work.

At this point in the partnering meeting the attendees have most of the material they need to prepare a tailor made charter for the project upon which they are working. Each person has in hand the problem statements from the entire group and copies of each person's project mission statement. The stakeholders are now ready to proceed with writing the project charter mission and objectives.

11:30 a.m. to 12:00 noon - Introduction to Workshop #4 - preparing recommendations for achieving success on the Francisco Theater Arts Building.

• **Workshop #4** - "Considering your team's comments in Workshops #1 and #2, and the individual mission statement you wrote in Workshop #3 what can all of us do to encourage good relations and excellent performance on the Francisco Theater Arts Building project?"

During Workshop #4, the discussion leader describes the technique of articulating specific objectives for the project team. There are two major methods of doing this.

In the most authentic method, the teams review each problem on their team list prepared from the efforts in Workshops #1 and #2. From this review, they prepare one or more specific objectives to be achieved by the stakeholders, which if achieved, will reduce the probability of that problem being encountered on the job.

For example, suppose Team A is the owner's team and the first problem statement on their Workshop #1 list of problems others cause us is:

" Changing construction work sequences without timely notice to the parties affected."

This is a very common item to be found in partnering problem statements. It can be classified under several coded problem types²¹ including:

- **Timely action (tac)** - action taken at the most effective time, or action

²¹ Problem type descriptions are paraphrased from "Project Partnering for the Design and Construction Industry" by Ralph J. Stephenson, P.E., published by John Wiley and Sons, Inc.

taken for a proper duration to accomplish a desired objective.

- Planning and scheduling (pas) - usable design and construction sequencing, resource assignment, scheduling and procurement planning for project actions.
- Communicating with others (cwo) - effective information exchange between or among individuals, groups, or organizations.
- Job management (jma) - effective leadership, knowledge, good personal skills and experience that allow proper assembly and use of resources needed to complete the total project or its components.
- User group interaction (ugi) - Maintenance of effective informational, technical, business and professional relationships with the owner and end user.

With these problem characteristics in mind, Team A might produce a suggested partnering objective such as:

"Members of the project team shall mutually prepare, publish, implement, and keep current, a project action plan and schedule of the work that is useful to all parties on the project. Responsibility for this work shall rest with the general contractor working in conjunction with all affected stakeholders."

During later group discussions this statement might be modified by action of the entire group of attendees, but for now it provides a good take off point for discussing the desired objective.

When preparing the list of objectives designed to reduce the probability of destructive conflict resulting from the problems stated the teams should concentrate on objective solutions that do not conflict with provisions of the contract documents. Remember - partnering is a moral agreement in principle, and must not supersede or supplant the planning, design and construction contracts.

Another method of preparing a list of objective solutions to the team's partnering problems is to use a prearranged list of objectives itemized by categories and numbered for ease of reference. A sample list of objectives of

this nature is included in Attachment B. If this technique is to be used in the partnering session the list should be included in the stakeholder's work book.

I have found that this method saves considerable time in setting the initial list of charter objectives. It also provides those who may not be adept at expressing themselves in meetings, a starter list of reasonably well written objective solutions.

The list in Attachment B has been prepared from nearly 1,500 objective statements contained in more than 60 charters. To use the list, participants in Workshop #4, select a suitable objective solution or solutions of their problems from the sample objectives contained in their workbook and note its number after their problem statement. They then use this reference in the full group discussions conducted in Workshop #6 and #7.

This method allows the charter meeting to proceed quickly and with a minimum of writing by the participants. I have encountered some criticism of the procedure by those who feel that it removes the benefit of team participation in writing the charter, instead, making the charter authors ones who write by the numbers rather than being original thinkers. This is certainly a valid objection and should be considered by the discussion leader when preparing for the meeting.

11:50 a.m. to 12:00 noon - Select three to five stakeholders to serve on the project mission task force. This task force will write the initial draft of the project mission.

As the teams are starting their initial work on the objectives they wish to be included in the charter the discussion leader should select three to five members of the total group to act as a project mission task force.

Their assignment is to prepare, for consideration by the entire meeting group, a project mission statement containing no more than 25 words. Members selected should be representative of the major parties at the meeting. The number on the task force should be kept at 3 or 5 to prevent the task force from becoming paralyzed by a tie vote on any debatable issue.

12:00 p.m. to 01:00 p.m. - Lunch - provided by the sponsor.

12:45 p.m. to 01:30 p.m. - Special project mission task force writes mission draft in Workshop #5 (attended by members of task force selected earlier).

- **Workshop #5** - Mission task force prepare first draft of project mission statement - twenty five words or less - written in separate breakout session.

Members of the task force should be assembled in a quiet area near the main meeting room and be provided with a full copy of Newspaper #1, which contains the Workshop #1 and #2 problem statements, and the Workshop #3 mission statements.

The task force should first read the individual mission statements prepared by the attendees in Workshop #4. As they read the individual missions they should highlight or underline the operative words. These words are the nouns, verbs and adjectives that seem to best express the ideas each person was striving to apply to the project mission.

An example of a mission statement containing several operative words is given below. The operative words are underlined.

"Operation Pride, a cooperative working partnership, will complete the renovation of the Old State Building, maintaining historical sensitivity and functional efficiency, while fulfilling the needs of end user groups. This will be accomplished safely, profitably, within budget and on schedule, resulting in a project in which we can all take pride."

Notice that the underlined words convey a clear overview of what was meant by the original writer in their mission statement.

When task force members have completed identifying what they feel are the operative words in the individual mission statements, they should attempt to synthesize these into a conglomerate statement that represents, as closely as possible, what the entire stakeholder group attempted to convey in their individual mission expressions. This statement should be put in presentable form and the project mission task force then can rejoin the main group for a group discussion of the project mission.

01:00 p.m. to 01:30 p.m. - Main group meets in classroom area minus the project mission task force.

**Introduction to project partnering evaluation and issue resolution systems -
Robert K. Litton, Meeting Chair.**

While the project mission task force is preparing the first draft of the project mission for presentation to the entire group, the remainder of the stakeholders are meeting with Mr. Litton, the conference leader, to review characteristics of the partnering evaluation system and of the issue resolution system. Questions that might be addressed in this period by the conference leader and the stakeholders include --

- What is a project partnering evaluation system?
- What is to be evaluated and how?
- Who prepares the evaluation system?
- Who makes the evaluations?
- How is the evaluation used to improve project performance?
- What is an issue resolution policy and how is it prepared and used?
- What is the time table for preparing the issue resolution system and the partnering evaluation system?

These questions are aimed at introducing to the project team the preparation and implementation of a partnering evaluation system and an issue resolution system subsequent to writing the partnering charter. In essence it is a briefing session for the stakeholders to prepare them for their participation in the partnering evaluation and the issue resolution discussions. These meetings are to be held shortly after the charter has been written and signed.

01:30 p.m. to 01:45 p.m.

- **Workshop #6** - Project mission task force presents the first draft of the project mission to the full group. The stakeholders revise the project mission statement as they desire and produce a second draft of the statement.

In Workshop #6 the full partnering group reassembles in the classroom area for a draft discussion of the project mission as prepared by the mission task force. A representative of the project mission task force should present the suggested mission statement on a flip chart or an overhead projector. The stakeholders then critique the statement and make suggestions they feel will strengthen the mission statement.

This initial review and revision of the mission prepared by the task force in Workshop #5 usually results in considerable discussion and several changes to the mission. I suggest that if the chair is using an LCD overhead projector that he or she put the task force's mission statement on the screen. The stakeholders can then suggest changes to the statement and revisions can be made as they are received from the group.

A word of caution is in order here -- be certain to retain the original mission as written by the task force since often it is desirable to return to the original to see that the intent of the operative words is not lost or subverted.

Workshop #6 should not last more than 15 to 20 minutes since the charter mission will be further reviewed periodically during preparation of the full charter in Workshop #7.

01:45 p.m. to 03:00 p.m.

• **Workshop #7 - Begin writing the partnering charter for the project.**

This is the time when the full group writes the charter draft from the current mission statement and from the objectives developed in part during Workshop #4. The purpose of this session is to write a document that accurately reflects the non-contract guidelines that stakeholders feel are good for project health.

Discussion results should be recorded as selection of the objectives proceeds. They can be recorded on overhead transparencies as they are written. For groups under 20 the objectives can be written on flip charts and revised as the discussion proceeds. They then have to be copied and reproduced in form that allows them to be incorporated into the final charter document.

Of the various methods I have tried, I found the easiest and most expeditious method of leading Workshop #7 is to write the objectives on a computer connected to an LCD projector. Material is typed and displayed as the objectives are formulated and critiqued. The computer software used can be an ordinary outlining or word processing program.

The LCD system gives the conference leader adequate time and space to work the stakeholder's suggestions into final form quickly and accurately as the

discussion proceeds. It also gives attendees time to discuss and revise their work as they write the charter.

If a pre prepared list of objectives is to be used, the list is entered into a computer word processor file prepared before the charter meeting. This list (see **Attachment B**) is then included in the workbook. During preparation of the actual charter in the full group meeting, team members identify the objective or objectives selected from the list as the group discusses the problem statement.

When a selected solution objective is flashed on the screen it is copied and pasted onto the charter draft. The full group then discusses the objective and makes revisions to tailor it to the specific problem under discussion. Revisions are made on the screen by the conference leader or the stenographer and when revised, the objective becomes a part of the charter objectives.

When revisions to an objective are complete, the full group can decide whether or not the item should be included in the final charter, should be removed, or should be further revised. Where there is serious disagreement on the inclusion or about the wording of a charter objective, and resolution of the conflict does not seem possible within a discussion mode, the chair should call for a vote on the issue and the majority will then prevail.

I suggest that about every 30 to 40 minutes the chair give the full group an opportunity to review and revise the project mission. Following this procedure will insure that by the time the charter objectives are written, the mission statement will have been given detailed attention.

Always remember the charter is being written by the stakeholders, for their benefit and guidance. Therefore within contract document boundaries their wishes and thoughts must be respected.

Where an assignment of post charter meeting work is needed to achieve an objective, the work should be specifically defined, and the responsibility for such work given to the party or parties best able to carry out the assignment.

Suppose project stakeholders feel that the organization, responsibilities and authority within the project team should be identified and articulated, and they put their feelings forth as a desired objective #12. The charter provision

stating this might read somewhat as follows:

****12. prepare, publish and keep current a document showing the lines of communication, authority, and responsibility for the field and office staff on the project. (matrix to be prepared by a appointed partnering team task force -- owner primarily responsible)**

Notice that the charter objective is flagged by an asterisk as a task that must be accomplished by the stakeholders subsequent to the charter meeting. The owner is identified as being primarily responsible, and the owner is to lead a stakeholder task force in carrying out the provisions of this objective.

03:00 to 03:15 p.m. - Coffee break.

Like the morning coffee break, the stakeholders might wish to take a working break. During this period the leader might print a copy of the charter as prepared to date, and distribute to the stakeholders for reference in the remaining work to be done in Workshop #7.

03:15 to 04:30 p.m.

- Continue Workshop #7 - Write final charter draft and review mission statement:

At this session the charter writing is substantially completed. The project mission statement has been discussed, reviewed and revised until it now satisfies most of the stakeholders. All problem areas identified in Workshops #1 and #2 have been brought to the floor and discussed.

04:30 to 04:50 p.m.

- Final approve, and print the signature copy of project charter

The remaining meeting time should be allocated to making a final copy review of the charter and arranging the objectives in a sequence that is psychologically pleasing, is logical, and reads easily and well. Typographical and grammatical errors must be corrected and a verbal sign-off given by the participants.

If time permits the final draft may be printed and distributed for a final

stakeholder look. One more review is given the copy and a vote is taken on printing or not. The usual response at this time of day, is an overwhelming chorus of voices shouting loudly, "PRINT THE DOCUMENT!"

04:50 to 05:00 p.m.

- Print and sign the charter and award memento.

The charter is printed, usually in two or three copies, and the signature copy is put on the front work table where a senior member of the group is asked by the chair to initiate the signing process. This senior member is often the ultimate decision maker for the project and can usually be identified easily and quickly by the group.

Other stakeholders then line up and each signs the charter if and where he or she desires. I recommend that each stakeholder upon signing the charter be given a small, inexpensive memento of their work in the session as they sign. Gifts can range from a suitably imprinted coffee mug or a lettered captain's cap, to more expensive items such as tape measures, knives or fountain pens. Partnering work is strenuous and a memento is a small reward to celebrate the successful completion and signing of the charter. Whatever the gift is, it will be appreciated since it is a unique token of the stakeholder's participation in a significant event in the life of their project. It is an important memento.

Most of the stakeholders that stay for the entire session will sign the charter. Occasionally an attendee will not sign. Usually the reason will be that their organization's policy did not permit them to sign without prior approval of their management. I suggest that no embarrassing head count of signatures be made except to insure that all who wish to sign are alerted in time to add their signatures before leaving.

Signing the charter should be kept optional if the spirit and intent of the partnering system is to prevail.

05:00 P. M. - Adjourn

Adjourning promptly is one of the most effective ways to solidify support for the provisions of the charter. An on-time meeting ending is always welcome.

Section 6 - Preparing and **Implementing the Partnering** **Evaluation System**

How do we evaluate the effectiveness of the partnering effort?

After the charter has been accepted and signed, and the job is being guided in its legal course by the contract documents, and in matters of non-contract courtesy by the charter, I recommend the stakeholders prepare the supplementary tools of partnering evaluation and issue resolution needed to provide utility to the partnering system.

First let us address the evaluation system since it is through the monitoring and evaluation of project progress that project problems are identified. To begin preparation of a partnering evaluation system the sponsor²² of the partnering effort should select a task force to accomplish the job. This is a limited short term assignment since the evaluation system can be built in two or three sessions of three or four hours each.

If we look at the partnering charter as a report card the task force will build a project evaluation system around the concept of the charter as a standard of performance. To illustrate the steps in preparing a charter evaluation system selection I shall use the charter for a new suburban post office located near a large urban community.

²²Sponsor - That person or organization that strongly supports or champions the partnering effort and assumes responsibility for its implementation.

Construction is just starting in the field and the total construction contract has been awarded to a prime general contractor under a fixed contract price. The project team has prepared the charter with a good deal of enthusiasm and the stakeholders generally feel its proper use can contribute greatly to project success.²³

Charter for the new Detroit, Michigan Post Office - Area P

I. A. Mission

This Special Delivery partnering team commits to deliver a quality project on time, within budget, safely, profitably for all, and of the intended quality, through mutual cooperation among the participants.

B. Objectives

The Special Delivery stakeholders will endeavor to achieve the following objectives while working toward accomplishing their mission for the new Post Office.

1. Maintain a clean and well planned work site.
 - a) Experience no lost time from accidents.
 - b) Be a good neighbor.
 - c) Use good construction site housekeeping practices.
2. Effectively administer the project.
 - a) Prepare & publish an acceptable payment procedure.
 - b) Submit complete, accurate & timely billings.
 - c) *Prepare & publish an acceptable submittal processing procedure. (to be prepared by the general contractor in conjunction with the architect/engineer and the owner).
 - d) Treat each other fairly.
3. Close out the project in a proper & timely fashion.
 - a) *Prepare & publish acceptable close out guidelines. (to be prepared by the general contractor in conjunction with the architect-engineer and the owner)
 - b) Establish clearly defined punch out procedures and standards early in the project.

²³See Section 2 - Design & Construction Conflicts and Problems for a discussion of project success.

4. Maintain effective lines of communication.
 - a) Recognize the need for quality information.
 - b) Minimize response times in all matters.
 - c) Maintain an appropriate level of documentation.
 - d) Be available.
5. Resolve issues and problems effectively.
 - a) *Develop, approve, and implement a responsive conflict resolution system. (to be prepared by a stakeholder task force, and approved for distribution and use by the project team).
 - b) Resolve disputes and conflicts at the originating level if at all possible.
 - c) Resolve disputes and conflicts as quickly as possible.
 - d) Eliminate the need for third party binding legal involvement.
6. Limit cost growth.
 - a) Maintain an objective attitude toward constructibility.
 - b) Develop cost effective measures to apply to all job related activities.
 - c) Recognize and respect the owner's needs in occupying and operating the project.
7. Maintain technical excellence in all program, design & construction work.
 - a) Owner abate promptly as required.
 - b) Define and clearly communicate quality standards expected.
 - c) Maintain constructibility of the project.
 - d) *Properly plan and schedule the work. (the master network model and schedule for all parties is to be prepared by the general contractor in conjunction with his subcontractors, the owner and the architect-engineer. Updating is to be done by mutual agreement of the parties as required).
 - e) Do it right the first time.
8. Maintain good job morale & attitudes.
 - a) Promote partnering attitudes at all levels of contract administration.
 - b) Take pride in our work.
 - c) Have fun.
9. Maintain partnering effectiveness.
 - a) *Prepare and publish a partnering effectiveness measurement system. (to be prepared by a stakeholder task force and approved for distribution and use by the project team.)
 - b) *Meet on a scheduled, regular basis and formally evaluate partnering

effectiveness. (meetings to be scheduled and chaired jointly by owner and general contractor).

c) Take prompt steps to correct any deterioration of partnering effectiveness on the project.

* indicates charter objective requires preparation and distribution of information.

() identifies party or parties to take actions described.

Item 9a is the partnering evaluation objective which the task force will address. The steps to be taken by the members of the task force are outlined below. This is a suggested sequence of action and may be revised as the group feels necessary. However the sequence is a workable set of guidelines, and will provide an authentic, easily used procedure by which a set of performance standards can be established.

Step 1 - Set the importance, or weight, of value-added by each charter objective

Each objective in the Charter contributes a degree of value-added to the project. This importance, or weight, is assigned to each of the charter objectives by the task force in their initial work on the system. The task force has decided to use a weight rating from one to five, with 1.00 indicating the lowest level and 5.00, the highest. A weight of 5.00 indicates that the objective is of critical importance in achieving the project mission. A weight of 1.00 indicates that the objective is of least importance when evaluated against the highest weighted objectives.

The task force then decides that Objective 2 - effectively administer the project, and Objective 5 - resolve problems effectively, have the potential to contribute most to the success of the project. However they do play a role important enough to warrant a five, or top rating. The task force assigns these objectives a moderately high weight of 4.50.

Step 2 - Remaining charter objectives are assigned a weight in relation to the most important of the objectives

Other charter objectives are assigned weights ranging downwards from 4.25 to 2.50. The final weights selected for each charter objective are shown in column two of Figure 6.

Figure 6 - Partnering evaluation for current period

1

	2 - par weight (w)	3 - par quality (q)	4 - par (w) x (q)	current quality	current (w) x (q)
01. Maintain a clean and well arranged work site	3.00	2.50	7.50	2.25	6.75
02. Effectively administer the project	4.50	3.75	16.88	3.50	15.75
03. Close out project in a proper and timely fashion	4.00	3.50	14.00	2.00	8.00
04. Maintain effective lines of communication	4.25	3.75	15.94	3.00	12.75
05. Resolve problems effectively	4.50	4.00	18.00	4.00	18.00
06. Limit cost growth	2.50	2.25	5.63	2.25	5.63
07. Maintain technical excellence in all program, design and construction work	3.50	3.00	10.50	3.25	11.38
08. Maintain good job morale and attitudes	2.50	2.25	5.63	2.00	5.00
09. Maintain partnering effectiveness	4.00	3.75	15.00	3.25	13.00
Average:	3.64	3.19	12.12	2.83	10.69

The weight indicates how important the item has been perceived as being by the charter partners in relation to achieving the project mission. Weights assigned to the objectives remains constant throughout the project. Therefore care must be taken to properly assign them at the start of the evaluation process.

The final weight assigned to each objective is simply called the par weight.

Step 3 - Assign a quality level that is considered acceptable, and possible to achieve for each charter objective.

The quality of the project performance in relation to the Partnering Charter objectives is to be measured once per month by representatives of all organizations who participated in writing the charter. Performance quality ratings are to be from 1.00 to 5.00.

At the task force meeting an acceptable level of performance for each objective is decided on by the stakeholders. This acceptable performance level may not necessarily be set at the highest level, or 5.00, since quality levels demanded might vary depending on the type of project, its location, the degree of criticality of a charter objective, or upon how severely the charter objective impacts upon achieving the mission.

An example of varying quality ratings might be seen in a project being built in the heart of downtown Detroit compared to a project being built in a rural setting on a very large site in the suburbs of Detroit. Space demands usually make downtown construction site maintenance more demanding than for a project being built on a rural site. Therefore the quality standard expected to be maintained for the urban site will usually be higher than for the rural setting. Quality standards of performance for various types of projects in various locations may have considerable range.

A quality rating of 1.00 indicates very poor performance for the evaluation period with little adherence to the standards set out by the objectives. A quality rating of 5.00 indicates continuous high and excellent adherence to standards set by the objectives over the evaluation period.

In our Special Delivery project the quality to be used to measure satisfactory performance ranges from 2.25 to 4.00. This quality value is known as the par

quality. It is similar to par in golf.

Step 4 - Complete the matrix spread sheet, Figure 6. by providing a target standard of performance as shown in column 4 labeled par (w) X (q).

This numerical indicator is used as a performance measurement by periodically assigning a quality rating to each charter objective, multiplying it by the charter objective weight, and then comparing the product to the par (w) X (q) for each objective as set by the task force.

The entire stakeholder group should provide periodic ratings of their's and other's performance quality to a stakeholder representative responsible for tabulating the current status of the project in relation to the charter. The tabulation is displayed in the simple matrix shown in Figure 6, and issued to the stakeholders accompanied with a brief description of all unresolved conflicts or disputes.

The summary should be provided to the stakeholders a few days prior to the regular partnering evaluation meeting. Frequency of evaluation meetings should range from every three weeks on small short projects, to every three months on very large projects. The task force should establish an evaluation frequency and provide their recommendations to the other stakeholders for approval.

Usually it is best to keep evaluation meetings separate from regular construction meetings, although discussing the partnering performance review at job meetings certainly is appropriate, particularly if potential problems need the attention of the stakeholders.

The total current evaluation of the objective is the weight multiplied by the quality rating for each objective for each evaluation. The total partnering performance is measured at each evaluation against the par ratings. A comparison of current to past performance and to the expected par should be carefully analyzed by the charter stakeholders for trends both good and bad.

Action on trends should be taken promptly after the analysis - maintaining good performance if the trend is up, and correcting poor performance if the trend is down. Remember, the charter is a standard-of-performance report card to encourage management-by-exception. It is a current status diagnostic tool, and should be maintained regularly just as any other job report.

Section 7 - Preparing and Implementing the Issue Resolution System

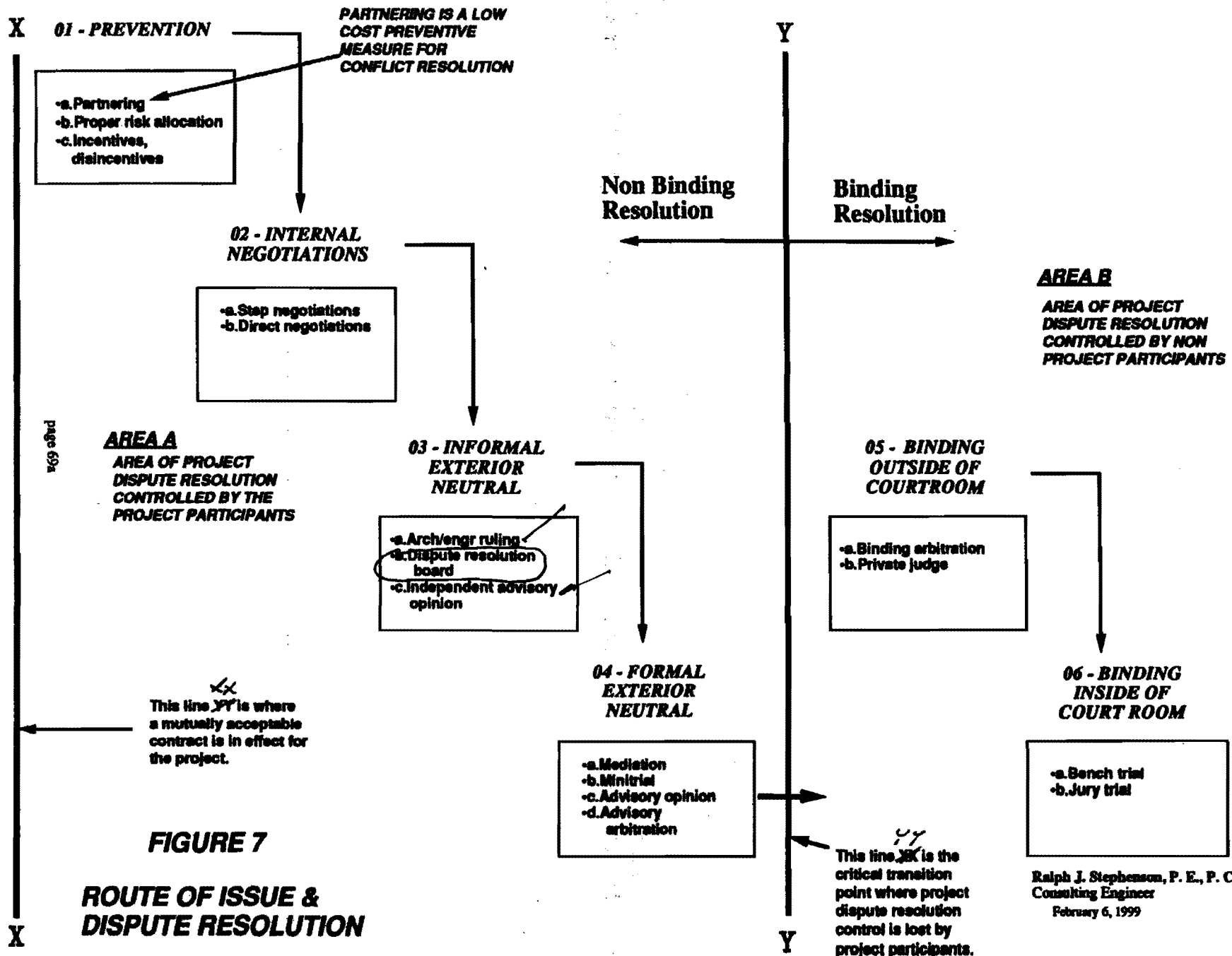
How do we resolve potentially destructive disputes that
arise on the job?

As stakeholders on the Special Delivery project, we have written the charter, and put the partnering evaluation system in place.

Preparing charter objective 5a, "Develop, approve and implement a responsive conflict resolution system" is now being discussed by a stakeholder task force. This element, like the partnering evaluation system is prepared by a task force appointed by the stakeholders with the specific assignment of preparing a procedure to allow job difficulties to be resolved by alternative dispute methods. Some of these techniques were described in Section 3 and were shown graphically in that section. This graphic is duplicated for ease of reference in Figure 7.

The methods recommended for use as alternative dispute resolution tools include:

01. Intelligent and proper risk allocation
02. Incentives and disincentives
03. Partnering
04. Step negotiation
05. Direct negotiation
06. Architect-engineer ruling
07. Dispute resolution boards
08. Independent advisory opinion
09. Non binding arbitration



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February 6, 1999

10. Non binding mini trial
11. Advisory opinion
12. Advisory mediation and arbitration

These are described in detail in Section 3. Each method falls into one of four broad classifications as shown in Figure 7 -- Prevention, Internal Negotiations, Informal Exterior Informal Neutral, and Formal Exterior Neutral.

Figure 7 is arranged to display the recommended methods proceeding from left to right in ascending order of the intensity and complexity of the dispute. The simplest and most inexpensive ADR methods are the prevention techniques followed by the internal negotiation methods, then by the informal exterior neutral and ending with the most complex and costly, the formal exterior neutral. Most alternative dispute resolution procedures combine the systems into a progressively more complex methodology moving from left to right on the Figure 7 horizontal scale between vertical lines XX and YY.

To the right of line YY are shown the major binding, and most expensive, resolution systems -- inside the courtroom and outside the courtroom. These methods are not considered in this paper, although at some point in conflict situations that cannot be resolved by use of alternate dispute systems, the parties may have to resort to binding systems to the right of line YY.

Using the Special Delivery post office charter described in Section 6 as the base discussion document I have outlined below the general steps to be taken in establishing and implementing an issue resolution system.

At the initial meeting of the Issue Resolution Task Force the stakeholders should prepare a general policy statement that summarizes the attitudes of the project team toward the settlement of disputes and conflicts. One of the most effective and elegant of such statements, was one written several years ago for a hospital project being built under heavy potential conflict conditions. It is reproduced below. Some of the wording has been altered to better suit the purposes of this paper. However the intent of the policy remains clear.

Issue Resolution Policy

It is the objective of the Special Delivery post office project team management to first and foremost avoid unnecessary disputes and conflict on the job. It is the intent to do this by achieving the objectives of the charter, particularly to resolve

destructive conflict issue quickly and at the level at which it originates. If this is not possible the issue will be referred promptly to the next higher project management level for consideration and resolution.

In all cases, individuals who have a difference of opinion should be businesslike and not resort to personal attack. The principles outlined in the Partnering Charter mission and in the charter objectives should be followed at all times in resolving differences.

Upon request, on-site meetings will be convened to discuss any unresolved issue and to attempt to reach resolution. Any issue presented should be clearly defined and alternative solutions suggested. The resolution process is to work through open communication and looking at the other side's point of view. In addition, issues are to be kept in the forefront to ensure resolution in a timely manner. A log of unresolved issues will be maintained from partnering evaluation meeting to evaluation meeting.

If resolution cannot be reached at the job site, the principals of the involved firms or agencies should attempt to reach resolution through informal discussion before the formal claim process outlined in the contract documents is used.

In seeking resolution to an issue, involved parties will attempt to:

- Thoroughly understand the issues.
- Maintain empathy for other's points of view.
- Communicate thoughts openly and clearly.
- Clearly document the issue resolution.

Once this broad issue resolution policy is in place the stakeholder task force should address the details of how best to resolve actual and potential disputes that may arise on the job. There are many different techniques and procedures that are used. The best systems are often found to be combinations of two or more of the basic twelve systems shown in Figure 7.

A possible ADR methodology is given below that fits the Issue Resolution Policy statement outlined above.

Issue resolution methodology

Goal

To encourage and provide a forum for resolution of issues at the lowest possible management level, and to provide a mechanism to elevate the issue to higher organizational levels if needed.

Methods

Step 1 - As a conflict arises either from contract or partnering sources, steps should be taken immediately to settle the dispute at the originating level among the disputants. Those directly involved are generally the best informed about the details of the conflict. If they follow the basic guidelines outlined above in the Issue Resolution Policy the probability of settlement at the originating level can be kept reasonably high. Most people involved in lower level management disputes do not want those disagreements which they are responsible for resolving, being booted to higher management levels.

No project issue in dispute should be allowed to remain unresolved at a lower management level for longer than one working week without moving the issue to higher levels of management for resolution.

Step 2 - If at the end of a week's effort no suitable resolution has been reached at the originating level, the disputant party's immediate superior shall be responsible for seeing that the issue is listed in the job reports as an unresolved item, and recorded as an open issue in the stakeholder's charter evaluation submittal.

Step 3 - Attempts should next be made to resolve the open issue or dispute at successively higher levels of job management. Each job management level attempt shall be made for no longer than one week, with a limit of three successive weekly efforts following the first elevation from the originating level. This step method provides four weeks maximum for job level disputants to resolve the problem.

Step 3 - If, at the end of four weeks from the origination of the dispute, the matter has not been resolved internally, the disputant stakeholder's management will agree upon a third party neutral who will be called in to render an objective neutral opinion as to what results can be expected if no

resolution is reached. If desired by the parties to the dispute, the neutral can then be asked to mediate the dispute.²⁴

Step 4 - The informal neutral process shall be allowed to proceed for three weeks. If, at the end of this time the issues are still not resolved the neutral(s) shall be asked to issue a written analysis of his or her findings, and to provide a non binding recommendation for settlement.

Step 5 - If, by two weeks after receiving the neutral's written recommendation, the issue has not been resolved, one more attempt will be made to resolve the dispute by non binding resolution.

Step 6 - If the final attempt at settlement has not succeeded within a week of its initiation, the disputants will take formal steps to resolve the issue by binding methods, if they so desire.

This preliminary draft of the Issue Resolution Policy and Methods is distributed to the stakeholders for their study, comments, and approval. Once, all stakeholders are satisfied with the draft as revised, the final document is prepared and issued to the stakeholders.

Keep in mind that there are several hundred possible combinations of the twelve techniques that can be incorporated into issue resolution guidelines. Intelligent and knowledgeable practitioners should be able to assemble a policy that can be accepted by any project team in a partnered project.

At this point in the partnering process all elements of the system are in place and the stakeholder can concentrate on building the job in accordance with their contract and the partnering concepts they have agreed upon.

²⁴Mediate - a private, informal process in which the parties are assisted by one or more neutrals to reach a settlement. Neutrals, in such a case, do not judge or arbitrate the dispute -- they advise and consult impartially to help bring about a mutually agreeable resolution of the dispute.

Partnering for the Design & Construction Profession
NSPE Annual Meeting - July, 1999
Spokane, Washington

Ralph J. Stephenson, P.E.
Consulting Engineer

Partnering works !

Attachment A - NSPE Annual meeting - Spokane, Washington- July 1999

Glossary of terms

1. **Acceleration**
Contract work performed in a time period shorter than that originally contemplated by the contract; or contract work performed on time when the contractor is entitled to an extension of time for his performance.
2. **Administrative settlement**
A resolution of a dispute through discussion between the disputing parties and agreement upon a mutually satisfactory settlement.
3. **Advisory arbitration**
An abbreviated hearing before a neutral expert or a group of neutral experts acting as arbitrators. The neutral arbitrator or arbitrators issues an advisory award and renders a prediction of the ultimate outcome if the matter is adjudicated.
4. **Advisory opinion**
An abbreviated hearing before a neutral expert or a group of neutral experts acting as advisors. The neutrals render an advisory opinion and often predict the ultimate outcome if the matter is moved to binding resolution.
5. **Agent**
A person or firm whose acts are asserted by the third party to bind the principal.
6. **Alternative dispute resolution**
A method of resolving disputed construction claims by non-binding methods outside the courtroom, usually by internal or third party assistance methods. These are alternatives to conventional binding dispute resolution methods such as litigation and binding arbitration.
7. **Approval**
An official or formal consent, confirmation, or sanction.
8. **Arbitration**
A method for settling disputes whereby an officially designated third party (usually one to three people) hears and considers arguments and determines an equitable settlement. May be considered binding upon the parties.
9. **Architect, engineer ruling**
The ruling of the architect or engineer in an issue or dispute on a construction project on which he or she is the design professional of record. Where specified the ruling may be binding if accepted as specified in the contract.
10. **At-risk**
A position or action that puts an individual or organization in the position of possibly suffering harm, loss, or danger. Often the hazard poses an uncertain but potential danger.

11. Authority

The prerogatives, either vested or acquired over a long period of time, that allows an individual to carry out their responsibilities and duties. This includes the right to determine, adjudicate, or otherwise settle issues or disputes; the right to control, command, or determine.

12. Binding resolution

A third-party imposed solution to a contested claim in which the conditions are legally binding on the parties.

13. Breach of contract

Failure to perform all or part of a contract where there is no legal excuse for such failure.

14. Charter

A document prepared and agreed to, by the project partnering stakeholders and containing a set of informal guidelines to successful performance in the execution of non-contract project matters. The charter is normally signed by the stakeholders and is used in conjunction with a mission statement from which the guidelines are derived, a partnering evaluation system by which noncontract practices are periodically evaluated, and an issue resolution system containing guidelines to the settlement of contested disputes about project matters.

15. Claim

A demand for something as due; an assertion of a right or an alleged right. In construction generally a demand for something as due, or in which the demand is disputed.

16. Claim avoidance

A technique and procedure for generation of situations in which the demand for what is due as a result of a contract agreement is honored without formal dispute, or in which the dispute is settled by an administrative settlement.

17. Claim potential

The measure of potential that any project has to encounter disputes during its implementation.

18. Claim prone job

A design and construction project that has a relatively high potential for the generation of contested claims by or against any of the at risk parties to the project.

19. Close out

The process of completing a construction project. Usually extends from the start of preparing the contractor's punch list through receipt of final payment to the designers and constructors. May occasionally extend through the warranty period.

- 20. **Communicate**
To convey information about, to make known or to impart knowledge, ideas, or thoughts.
- 21. **Conflict**
A state of disagreement and disharmony.
- 22. **Contested claim**
A demand or claim in which the demand is disputed.
- 23. **Contract documents**
Usually considered to be the construction documents which provide the full definition of the scope of work for which the parties are legally responsible. Could include the agreement, the drawings, the specifications, instructions to bidders, addendum, and any other material included by mutual agreement and clearly identified as part of the contract.
- 24. **Coordinate**
To harmonize in a common action or effort. Many design and construction consultants recommend the word not be used in contracts since it has indistinct meanings as related to management in design and construction.
- 25. **Critical transition point**
The point in a project delivery system at which the responsibility and authority for the work passes from the supportive group to the ex'e'cutive group.
- 26. **Destructive conflict**
Animosity or disagreement which results in lowering the potential for an individual or organization to succeed.
- 27. **Disincentive**
A penalty imposed on a contract party for less-than-satisfactory performance on a project. The disincentive is usually coupled to a bonus or incentive.
- 28. **Dispute**
To engage in argument or discussion. To quarrel or fight about.
- 29. **Dispute resolution board**
A method of dispute resolution where project participants establish procedures, by contract, to proactively settle disputes as they arise during the course of the project. Dispute resolution boards seek to anticipate problems and get the parties to resolve them before the problems harden into formal claims.
- 30. **Documentation**
An organized collection of historical records that describe the events comprising a project or program. Also the act of preparing or supplying documents or supporting references in a project or program for future reference.

- 31. **Education**
The teaching and learning process by which the principles of doing things are conveyed to the learner.
- 32. **Effective**
Of a nature that achieves identifiable goals and objectives in accordance with an action plan, and achieves worthwhile peripheral goals through intermediate accomplishments.
- 33. **Engineer or architect of record**
The legally licensed architect or engineer who oversees the production of drawings and specifications from which something is to be built. The architect or engineer of record is usually required to sign and seal the documents and is liable for their correctness.
- 34. **Executive**
The executing arm of the organization closest to the flow of expense and income experienced in achieving the organization's prime objectives. Closely related to line operations.
- 35. **Generic construction**
The field of business practice that encompasses all phases of the construction industry, including programming, planning, designing, building, operating, and maintaining facilities. Described best as the full set of activities shown in the line of action.
- 36. **Goals**
The unquantified desires of an organization or individual expressed without time or other resources assigned. (See objectives for related definitions.)
- 37. **Guaranteed maximum price (GMP)**
The price for a specified scope of work to be provided by a contractor that contractually binds his performance to a specified guaranteed maximum price. Often the guaranteed maximum price is tied to a time and material performance with the price not to exceed the agreed upon maximum.
- 38. **Hard-money**
A total price agreed to for the entire work, and to be paid in a mutually satisfactory schedule of payments.
- 39. **Incentive**
A bonus paid to a contract party for performing its work in a superior manner to that specified. The incentive is usually coupled to a penalty or disincentive.
- 40. **Independent advisory opinion**
An opinion rendered by a qualified neutral of what outcomes can be expected if certain courses of action are followed.
- 41. **Issue**
A point or matter of discussion, debate, or dispute.

42. Issue resolution

A method of reaching agreement and closing out disputes and problems at the lowest possible management level, in the shortest possible time, and with the lowest potential for residual hard feelings.

43. Leadership

"The process of persuasion or example by which an individual induces a group to pursue objectives held by the leader or shared by the leader and his or her followers." - John W. Gardner

"The art of getting someone else to do something you want done because he wants to do it" - Dwight D. Eisenhower

44. Liquidated damages

The amount established by the parties to a contract which must be paid, by one or either of the parties, in the event of a default or a breach. Is related to the damages suffered by late performance.

45. Manage

To define, assemble and direct the application of resources.

46. Matrix

A two or more dimensional display of related data.

47. Mediation

A private, informal process in which the parties are assisted by neutral(s) to reach a settlement. In mediation the neutrals do not judge or arbitrate the dispute. Rather, they advise and consult impartially with the parties to bring about a mutually agreeable resolution of the dispute.

48. Mission

A statement of the most important result to be achieved by the project being successfully completed.

49. Neutral

An unbiased outside expert capable of objectively listening, analyzing, and evaluating construction-related demands or claims which are in dispute and rendering an opinion or decision as to its disposition.

50. Objectives

Quantified targets derived from established goals (see goals). The most commonly used resources in converting goals to objectives are money, time, human abilities, human actions, equipment, and space.

51. Par

An amount or a level considered to be average; a standard that is acceptable for a defined purpose.

52. Par performance quality

A rating, usually numerical, that expresses the level of performance quality that will be accepted as the normal degree of competence expected of an individual

or organization in the performance of an action.

53. Partnering - a base statement

A method of conducting business in the planning, design, and construction profession without the need for unnecessary, excessive and/or debilitating external party involvement.

54. Partnering - Associated General Contractors

A way of achieving an optimum relationship between a customer and a supplier. A method of doing business in which a person's word is their bond, and where people accept responsibility for their actions.

Partnering is not a business contract, but a recognition that every business contract includes an implied covenant of good faith.

55. Partnering - Construction Industry Institute

A long term commitment between two or more organizations for the purpose of achieving specific business objectives by maximizing the effectiveness of each participant's resources.

This requires changing traditional relationships to a shared culture without regard to organizational boundaries. The relationship is based upon trust, dedication to common goals, and an understanding of each other's individual expectations and values. Expected benefits include improved efficiency and cost effectiveness, increased opportunity for innovation, and the continuous improvement of quality products and services.

56. Partnering - organizational

The application of partnering systems and methods to the ongoing work and staff activities of an organization. An internal partnering system within an organization as applied to the internal work effort of the company staff.

57. Partnering - project or tactical

A method of applying project-specific management in the planning, design, and construction profession without the need for unnecessary, excessive and/or debilitating external party involvement.

58. Partnering - strategic

A formal partnering relationship that is designed to enhance the success of multi-project experiences on a long term basis.

Just as each individual project must be maintained, a strategic partnership must also be maintained by periodic review of all projects currently being performed

- Ida B. Brooker 1994 WEX

59. Partnering charter

The basic manual for operating a partnering system. Contains at a minimum, the mission of the project team, and their objectives for the project. Usually is signed by those writing the document.

The charter is an agreement in principle and must not supersede or supplant the design and construction contracts in place or to be written.

60. Peer review

A partial or full audit evaluation done by technically competent, objectively based individuals or organizations outside those owning, designing, building or operating the facility.

61. Positive conflict

Hostility that is managed so that its resolution raises the potential for individuals or organizations to succeed at being excellent.

62. Prime contractor

A contractor whose business agreement is directly with the organization providing primary financing for the project.

63. Problem

A deviation from an accepted and/or approved standard of performance.

64. Professional

Having great skill or experience in a special contributive field of work.

65. Profit - educational & training

Fulfillment of learning and teaching goals held by individuals and their companies.

66. Profit - enjoyment

A sense of personal satisfaction gained by the possession or use of a physical, intellectual or emotional improvement, primarily through one's efforts.

67. Profit - financial

Fundamentally, the difference between organizational cash income and organizational cash expense. Further definitions of financial profit are complex and often unique to an organization or project.

68. Profit - self actualization

Personal fulfillment realized after basic needs of shelter, safety, protection, love and freedom from hunger are achieved.

69. Profit - social

A gratifying experience gained through achieving or contributing to an improvement in a society's well being.

70. Profit - socio economic

Company, group or individual achievement of social objectives within a financially profitable set of activities.

71. Profit - value system

Company and project fulfillment of personal, professional, technical, social and financial values held important by individuals and groups related to the company.

- 72. **Program - as defining a step in the design process**
A narrative oriented statement of the needs and character of the proposed user operation, the requirements of the user and owner, the nature of the environment to be planned, designed and built, and the corresponding characteristics of the space that will satisfy these needs and requirements. Sometimes called the brief.
- 73. **Project - as a set of work actions**
A set of work actions having identifiable objectives, and a beginning and an end.
- 74. **Project - as related to management**
A specific management assignment to achieve a set of objectives by accomplishing a group of related, discrete operations which have a defined beginning & end.
- 75. **Project delivery system**
A method of assembling, grouping, organizing & managing project resources so as to best achieve project goals & objectives.
- 76. **Project management**
The art, science and profession of defining, assembling and directing the application of resources so as to profitably execute a work effort that has identifiable objectives, and a well defined beginning and end.
- 77. **Project manager**
One who helps establish objectives generated by a need, plans how these objectives are to be reached through a set of work actions, and then assembles and directs the application of available resources to achieve the objectives on one or more projects.
- 78. **Quality**
- 79. **Resolution**
A course of action determined or decided upon that can result in clearing conflict or dispute.
- 80. **Revisiting**
When applied to the partnering charter, revisiting means the current project decision makers are assembled, and the present charter is reviewed, revised, and reissued as might be called for by changed project conditions.
- 81. **Risk**
Any exposure to the possibility of harm, danger, loss or damage to people, property, or other interest. To expose to a chance of loss or damage.
- 82. **Risk management**
The management and conservation of a firm's assets and earning power against the occurrence of accidental loss.

- 83. **Sponsor - partnering**
In the partnering context, a person or organization that strongly supports or champions an activity and assumes responsibility for its implementation.
- 84. **Stakeholders**
The parties at risk financially and legally or in an extended sense, those affected and potentially put at risk during the execution of a planning, design, or construction contract. Stakeholders are also those who participate in writing a partnering charter and are a signatory to the charter.
- 85. **Standard of performance**
A well defined, explicitly stated, approved and accepted statement of the measurements to be used as a gage of performance, and goal and objective achievement.
- 86. **Standing neutral**
A technically trained, educated, and credentialed professional who is active in the planning, design, and construction disciplines. The standing neutral must be capable of objectively listening, analyzing, and evaluating construction related demands or claims which are in dispute.
- 87. **Standing neutral system**
A process where neutral third parties are available to assist with resolution of all disputes arising during the course of a contractual relationship. The intent which includes dispute review boards and standing neutrals is to have one or more individuals on call to address disputes as they arise. It usually requires the neutral to render a nonbinding determination of the issues in dispute, although in some cases, and upon request, the neutral can act as a binding arbitrator.
- 88. **System**
An assemblage or combination of things or parts forming a complex or unitary whole.
- 89. **Task force**
A temporary grouping of individuals and resources who are responsible for accomplishing a specific objective.
- 90. **Technography**
The action of preparing meeting notes and related material on electronic equipment as the notes and materials are generated. Often the recorded material is projected on a screen for viewing by those in the meeting.
- 91. **Telltale**
A thing serving to reveal or disclose something.
- 92. **Timely**
An action taken at the correct or effective time, or action taken for a correct or effective duration.

93. Training

The teaching and learning process by which specific, explicit methods and systems of doing something, usually by rote, are conveyed to the learner.

94. Ultimate decision maker (UDM)

The individual or group at the lowest management level that has the authority to make a final binding decision in any job related matter.

95. Value added

The improvement in the worth of anything that results from the efforts, contribution and involvement of specific people, processes, materials and ideas.

96. Weight

The relative importance of a factor being used to help evaluate a choice. The importance is frequently measured by a numeric scale from 1 to 10, in which a very high positive influence is indicated by a rating of 10. A very low influence is indicated by a rating of 01.

97. Working drawings

The set of contract drawings that pictorially show the intended appearance of a job when complete.

98. World of non-words

The world in which we live by our physical actions.

99. World of words

The world in which we live by simulating actions through words and other symbols what might happen in the world of nonwords.

Attachment B - Sample Partnering Charter Objectives

The list of objectives below is designed to assist the stakeholders to write a sound, well expressed charter. If a numbered objective fits a particular recommendation your team wishes to make, note the number of the objective and any revisions you wish to make to it. We will then consider the objective for inclusion as we write the project charter.

Major topics appearing below include:

- A. Approval Processes
- B. Being A Good Off/On Site Neighbor
- C. Closing Out the Project
- D. Communicating With Others
- E. Decision Making
- F. Documents and Documentation
- G. Financial Matters
- H. Inspection and Testing
- I. Issue, Conflict, and Problem Resolution
- J. Job Management
- K. Legal Matters
- L. Maintaining Regular Project Evaluations
- M. Organization, Authority, and Responsibility
- N. Planning and Scheduling
- O. Payment Processing
- P. Personnel Quality and Problems
- Q. Regulatory Agency Matters
- R. Revision Processing
- S. Staff Morale and Attitudes
- T. Submittal Processing
- U. Work-site Conditions

Don't hesitate to change wordings since it is entirely possible that your expression of a desired objective may be different than that of the original.

A. Approval Processes

1. Provide required documentation and approvals within the mutually agreed upon time frame.

2. Make and document all decisions, and provide all approvals at their management level promptly, fairly and with consideration of the requirements of the project.

B. Being A Good Off/On Site Neighbor

3. Maintain a clean, safe, accessible , and well-planned work site.
4. Recognize that project conditions and decisions affect other partners in achieving the overall design intent.
5. Maintain, in conjunction with other stakeholders, a work area plan to be implemented by affected stakeholders.

C. Closing Out the Project

6. Establish close-out guidelines that provide clearly understood direction for punching out the job, issuing Certificates of Substantial Completion, establishing intermediate occupancy dates, and maintaining and transmitting contract record documents.
7. Prepare and specify a close out plan.
8. Prepare and specify a rolling punch list and close out procedure.
9. Establish and implement guidelines that provide direction for accepting the work and closing out the job.
10. Do it right the first time and strive to achieve a minimal punch list.

D. Communicating With Others

11. Prepare, publish, keep current and respect a chart of channels of communication, responsibility, and authority.
12. Limit the release of public information through the owner's designated representative only.
13. Anticipate, identify, and accurately communicate potential job problems.
14. Ask questions and request information clearly and accurately
15. Be sensitive to the informational needs of the design and construction team partners.
16. Communicate all issues in a timely fashion to all those affected by the issues.
17. Communicate clearly, accurately and in a timely manner through appropriate project channels.
18. Communicate effectively in an open, honest manner with all appropriate stakeholders.
19. Anticipate and communicate the conditions and disruptive circumstances

inherent in demolition and construction activities, to the staffs of the various facilities that are a part of this total program.

20. Communicate the principles of partnering on this project to all participating organizations and individuals.

21. Identify planned and required shut downs, and outages from and to the designers, builders, and the Capitol Complex operations staffs.

22. Ensure the design is understood and acknowledged by all the partners.

23. Maintain open lines of communication.

24. Make progress and technical meetings productive and brief by preparing well, and bringing both problems and solutions to the table.

25. Prepare and publish a communications flow chart showing roles and responsibilities of all project team members.

26. Prepare well for progress meetings and make them brief and productive.

27. Promptly prepare and respond to requests for information, substitutions, and clarifications of project documents.

28. Provide adequate data re: user-furnished equipment for construction to proceed as desired.

29. Provide timely communications, responses, decisions... and be available.

30. Recognize that project conditions and decisions affect other partners in achieving the overall design intent.

31. Regularly monitor and discuss, all anticipated outages with utility company and subcontractor input and provide maximum possible notice to the user of anticipated outages.

32. Respond promptly to requests for information and clarifications of contract documents.

33. Stay in touch with the project, i.e. reading meeting minutes, attending meetings as needed, and being available for input.

34. Prepare, publish and adhere to the lines of communication, authority, and responsibility for the school building partnering team.

35. Prepare and respond promptly and completely to requests for information and clarification of contract documents.

E. Decision Making

36. Make decisions in a timely manner and stand by the agreements you have made.

37. Make timely decisions in all project related matters.

38. Provide adequate backup data, within expectations, to allow timely and accurate decisions to be made by members of the project team.

39. Recognize that project conditions and decisions affect other partners in

achieving the overall design intent.

F. Documents and Documentation

40. Accurately prepare and properly distribute project documentation in a timely manner.

G. Financial Matters

41. Practice fairness in price proposals, backcharges, and all other financial matters.

H. Inspection and Testing

42. Provide for timely and professional technical inspection services with appropriate documentation and feedback to those affected.

I. Issue, Conflict, and Problem Resolution

43. Maintain the current issue resolution policy. (The current policy stresses the resolution of conflict at the originating or lowest possible working level.)

44. Minimize disputes and resolve conflicts quickly and at the lowest possible management level.

45. Prepare and publish an issue resolution policy which stresses the timely resolution of conflict at the originating or lowest possible management level and seeks to avoid litigation.

46. Prepare, publish, and implement a dispute resolution system designed to resolve conflicts at the lowest possible management level.

47. Strive to resolve job conflicts quickly and at the originating or lowest possible level.

J. Job Management

48. Anticipate events - be proactive.

49. Avoid surprises!

50. Be familiar with the contract documents.

51. Carefully evaluate and be sensitive to the impact that construction activities may have on the environmental integrity and safety of all ongoing hospital operations.

52. Continue to implement the partnering evaluation system (involving new

participants).

53. Continue to improve and implement agreed-upon project procedures that provide all stakeholders guidelines for:
54. Time commitments for procedures.
55. Prioritizing assignments.
56. Design and construct a facility that is built so as to recognize the need for the builders and the designers to achieve a reasonable financial profit on their work.
57. Design and construct a facility that is built within the time and cost terms of the lease-purchase documents.
58. Develop a organizational matrix showing lines of communication and responsibility to be maintained on the project.
59. Encourage the participation of all parties at all project levels in the partnering process and the partnering spirit.
60. Enforce the construction traffic and parking plans.
61. Foster understanding of construction documents
62. Identify and remedy incorrect performance in a timely manner.
63. Insure that each of their management team members is fully aware of the requirements of the project.
64. Keep current with project status and requirements.
65. Keep paperwork to a minimum.
66. Maintain a close relationship between expectations and reality
67. Maintain a continuous and efficient work force and effective procurement to ensure quality, sequence, and schedule
68. Maintain an adequate management and work force to fulfill contract commitments.
69. Maintain client safety and user satisfaction during construction.
70. No surprises
71. Plan for and meet the human resource requirements of the project, and maximize opportunities for women and minorities.
72. Plan for future service access to equipment during mechanical, electrical and plumbing installation.
73. Plan for the future not for the past.
74. Prepare and publish a calendar of project events indicating when key personnel are required to participate in project management activities. Partners will attend and participate in all required meetings and provide backup management where necessary.
75. Preplan work recognizing the impact plans have on achieving the design intent.
76. Properly staff and maintain competent personnel, and equipment required on the project.

- 77. Provide proper resources to support the agreed-upon plan and schedule of work.
- 78. Provide resources to fulfill contract & charter obligations.
- 79. Recognize and be sensitive to the needs of other stakeholders on the project.
- 80. Strive for a zero punch list.
- 81. Use human and technological resources to their maximum effectiveness.
- 82. Meet individual and organizational obligations.
- 83. Maintain a clean, safe, accessible and well-planned job site.
- 84. Maintain a clean, secure, accessible and well-planned job site.
- 85. Work to improve submittal and request for information (rfi) processing, including agreed-upon schedules and response times to meet the needs of all parties.
- 86. Work to maintain prompt payment processing including retention.
- 87. Work to improve revision and change order processing, including a streamlined process for minor changes (\$1000 or less).

K. Legal Matters

- 88. Strive to avoid litigation.
- 89. No litigation.

L. Maintaining Regular Project Evaluations

- 90. Prepare, publish, and implement a partnering evaluation system by which the effectiveness of the system is regularly monitored. (stakeholders task force)
- 91. Prepare, publish and implement a project partnering evaluation system.

M. Organization, Authority and Responsibility

- 92. Be accountable for your actions.
- 93. Fulfill respective responsibilities and commitments to permit on-time completion of the project.
- 94. Maintain continuity of key job personnel.
- 95. Prepare and publish a project directory showing people, work category, position and alternate contact.
- 96. Prepare, publish, and use a project chain of command
- 97. Prepare, publish, and keep current a chart of channels for communication, responsibility, and authority.

N. Planning and Scheduling

- 98. Adhere to agreed upon schedules and resource commitments.
- 99. Adhere to the current master construction schedule in effect on the project.
- 100. Develop a realistic plan of work and project schedule and honor it.
- 101. Distribute and regularly monitor and discuss, with subcontractor input, a master project schedule, and update schedules as required.
- 102. Mutually prepare, publish, implement, and keep current a project action plan and schedule of work that is useful to all stakeholders.
- 103. Prepare, distribute and regularly monitor and discuss, with subcontractor input, a master project schedule, and update schedule as required.
- 104. Solicit all team member's input for planning and scheduling

O. Payment Processing

- 105. Promptly prepare, submit, and process all payment requests.
- 106. Submit properly prepared requests for payment.

P. Personnel Quality and Problems

- 107. Do it right the first time and strive to achieve a zero punch list.
- 108. Prepare, publish, promote, and adhere to standards of work place conduct.

Q. Regulatory Agency Matters

- 109. Work closely with all regulatory agencies to assure compliance to their current standards and regulations.

R. Revision Processing

- 110. Accurately price changes to the project in a timely, reasonable and fair manner.
- 111. Approve and process changes in a timely manner.
- 112. Approve changes in a timely manner including formal issuance of supplemental agreements.
- 113. Control revisions being considered for the project to maintain the planned budget.
- 114. Prepare and implement guidelines for screening proposed changes to the project prior to requesting formal pricing of the changes. (owner, user, designers)
- 115. Provide accurate data and adequate time to ensure pricing changes that are fair and timely.

- 116. Provide reasonable change request budgets and identify insufficient budgets promptly.
- 117. Provide reasonable field change orders and change issue budgets, and accurately price changes to the project in a timely, reasonable, and fair manner.

S. Staff Morale and Attitudes

- 118. Be available.
- 119. Be cooperative.
- 120. Be willing to suggest and consider cost and time effective options.
- 121. Establish a trustful work environment with other stakeholders.
- 122. Establish and maintain good informal working relations on the job.
- 123. Extend the spirit of partnering to all project participants.
- 124. Have fun!
- 125. Have fun and celebrate the successful completion of the project.
- 126. Maintain high job morale and cooperative attitudes among all project participants.
- 127. Make the project a fun place to work and to meet new friends.
- 128. Promote and adhere to acceptable standards of conduct by the project team on the site.
- 129. Recognize individual and team accomplishments.
- 130. Respect all project participants and their work.
- 131. Respect and treat other's and their work as you wish you and your work to be treated; accept responsibility for damage to other's work.
- 132. Respect design and construction excellence as a fundamental goal to be achieved.
- 133. Respect financial profit as an incentive for private sector stakeholders.
- 134. Respect other team members' work and abilities.
- 135. Take pride in our work, respect the ideas and work of others and treat others as you would have them treat you.
- 136. Treat others as you would have them treat you.
- 137. Practice fairness in price proposals, back charges, and all other financial matters.

T. Submittal Processing

- 138. Prepare, package, and process submittals in a timely, fair, and considerate manner consistent with the priorities of the contractors, designers, and owner.
- 139. Promptly review and determine the merit of properly submitted requests for extensions of time.

U. Work-site Conditions

- 140. Continue to maintain continuity of work points between trades. (Work points refer to building control coordinates and elevations.)
- 141. Maintain a safe, orderly, well organized work site.
- 142. Maintain a well planned and clean work site.
- 143. Maintain continuity of work points between trades.
- 144. Maintain, in conjunction with other stakeholders, a work area plan to be implemented by affected stakeholders.
- 145. Prepare and publish a construction traffic and parking plan.
- 146. Prepare, publish, and implement a project clean up program for contractors on site.
- 147. Promote a clean and safe job environment.
- 148. Provide complete and unencumbered access to needed work areas in accordance with the project schedule.
- 149. Respect and treat others and their work as you wish you and your work to be treated. Take responsibility for damage to other's work. Amen!

Attachment C - Suggested Bibliography of **Management Related Books**

- **Managing Yourself Creatively**
Hawthorn Books, Inc.
260 Madison Avenue
New York, New York
Ted Pollock
- **The Nine Master Keys of Management**
McGraw Hill Book Company
330 West 42nd Street
New York, New York
Lester Bittel
- **The Managerial Grid**
The Gulf Publishing Company
Houston, Texas 77001
Blake & Mouton
- **Effective Psychology for Managers**
Prentice Hall, Inc.
Englewood Cliffs, New Jersey
Mortimer R. Feinberg
- **Dispute Avoidance and Resolution for Consulting Engineers**
Richard K Allen
ASCE Press 1993
New York, New York
- **The Time Trap**
Amacon
135 W. 50th Street
New York, New York 10020
R. Alec MacKenzie
- **How to Attract Good Luck**
Cornerstone Library
Division of Pocket Books, Inc
Rockerfeller Center
670 Fifth Avenue
New York, New York 10020
A.H.Z Carr
- **Partnering: A Concept for Success**
Associated Contractors of America - 1991
Washington, D. C.

- **Alternative Dispute Resolution for the Construction Industry**
John P. Bachner
Association of Engineering Firms Practicing in the Geosciences, 1988
Silver Springs, Maryland
- **The Executive Deskbook**
Van Nostrand Reinhold Company
450 West 33rd Street
New York, New York 10001
Auren Uris
- **Formal Organization - a systems approach**
Irwin - Dorsey Press
Homewood, Illinois
Carzo & Yanouzas
- **In Search of Partnering Excellence**
Construction Industry Institute
University of Texas at Austin, Texas 1991
- **Managing Architectural Projects**
The American Institute of Architects
1735 New York Avenue NW
Washington, DC 20006
David Haviland
- **Before You Build**
Her Majesty's Stationery Office
Government Bookshops, England
- **A Professional Guide for Young Engineers**
Engineers Council for Professional Development
William E. Wickenden
- **Legal Aspects of Architecture, Engineering and the Construction Process**
Justin Sweet
West Publishing Company
St. Paul, Minnesota
- **Give & Take**
Thomas Y. Crowell Company
New York
Chester L. Karrass
- **Smart Questions**
McGraw Hill Book Company
New York, New York
Dorothy Leeds
- **Survival in the Construction Business: Checklists for Success**
Thomas N. Frisby
R. S. Means 1990
Kingston, Massachusetts

- **On Leadership** John W. Gardner
Free Press 1990
New York, New York
- **Project Partnering for the Design and Construction Industry**
Ralph J. Stephenson, P.E.
John Wiley and Sons, Inc.
New York, New York
- **Project Management for Building Designers and Owners** Howard G. Birnberg
Association for Project Managers
CRC Press, Boca Raton, Florida
- **Risk Management for Building Professionals** Thomas E. Papageorge
R. S. Means 1988
Kingston, Massachusetts
- **Construction Partnering: The Joint Pursuit of Common Goals to Enhance Engineering Quality**
U. S. Army Corps of Engineers 1991
Omaha, Nebraska

Attachment D - Project Partnering Specification

Construction Project Partnering Specification for New Facility - Smith Data Systems, Ltd.,--Facilities Expansion and Renovation - Silverdale, Washington

Smith Data Systems, Ltd., and its design and construction consultants will encourage, support and implement a project partnering system on their expansion program. Smith Data intends to do this with the full participation of its staff, the design firms, the contractors and their subcontractors.

Partnering is a performance system designed to achieve an optimal relationship among all parties to a construction contract. Further, it is a method of conducting business in the planning, design, and construction profession without unnecessary, excessive, or disruptive external party involvement.

The partnering system is structured to draw on the strengths of each participating organization to identify and achieve mutually profitable objectives.

The Smith Data partnering system will consist of three main actions: preparing a partnering charter, establishing and implementing a partnering evaluation technique, and establishing and implementing an issue resolution procedure.

Team members will be required to participate in establishing these three elements of the partnering system in conjunction with Smith Data Systems, Ltd., and its consultants.

Smith Data anticipates that within 14 calendar days of issuing a notice to proceed with construction, Smith Data., its consultants, and the prime contractors on the project, with their subcontractors, will participate in a one-day meeting during which they will write a partnering charter in a team effort.

The partnering charter is the basic manual for operating a partnering system. It includes, at a minimum, the mission of the project and the objectives of the project team. In addition it outlines in broad terms, the project evaluation methods to be

used, and the dispute resolution process to be applied to conflict issues as they arise on the job.

Smith further expects that within 14 calendar days after the partnering charter meeting a partnering evaluation task force will be appointed by mutual agreement among the partnering charter participants. This task force will establish and publish a partnering effectiveness evaluation method. The partnering evaluation method will set guidelines for periodically measuring project performance against the mission and objectives set out in the charter.

Also within 14 calendar days after the partnering charter meeting a mutually selected issue resolution task force will be appointed from the partnering charter participants. This task force will establish and publish an issue resolution procedure encouraging the use of alternative dispute resolution (ADR) techniques.

Alternative resolution methods are voluntary and designed to help resolve conflicts quickly, satisfactorily, and as near as possible to the originating level of the conflict.

As a part of their expected contract performance all parties will be expected to participate in the preparation and maintenance of the charter, the periodic evaluations, and the issue resolution process. Outside costs for effectuating the partnership will be mutually agreed to by all parties.

Attachment E - Sample Invitation to Partnering Meeting

Frederick D. Gabrielse, P.E., President,
Gabrielse and Associates
Mechanical Contractors
2166 South Sylvester Avenue
Indigo, South Dakota 57024

Re: Construction Project Partnering for Francisco University Theater
Arts Building - Indigo, South Dakota

Dear Mr. Gabrielse:

We are about to launch a major construction program to provide Francisco University's students, and the public of Indigo, a new Theater Arts Building. You, as the prime food service contractor for the project, are an important member of the project team, and your opinions and management input are of great value.

In accordance with the University's facility staff's recent job meeting discussions, the Board of Regents of Francisco University and I, request your presence at a project partnering meeting to be held in the Questato Hotel on Friday July 30, 1999.

The purpose of this early job conference is to prepare a construction partnering charter for the new Francisco University Theater Arts Building on the Indigo campus. In this letter is a brief review of the partnering process and a proposed agenda for the meeting. Mr. Adler of Adler and Lane, the general contractors for the project, has informed me that you have already attended a partnering briefing session chaired jointly by him and our Director of Facilities, Thomas A. Lindell.

We have retained a professional consultant to chair the meeting. He is Robert K. Litton, P.E., a well known and highly respected construction professional from Spokane, Washington. Mr. Litton has chaired more than 60 partnering sessions and has gained a national reputation for his high level of integrity, and broad knowledge of the construction industry.

I have also invited other key members of the design and construction project team, many of whom I am certain you know, to participate in the meeting. I urge you to attend and to bring your key project staff members, with you to the session.

Below is a brief overview of the partnering system and a suggested meeting agenda.

An overview of partnering

Project partnering is a way of achieving an optimum business relationship in which a person's word is their bond, and where people accept responsibility for their actions. It is a recognition that every business contract includes an implied covenant of good faith. A partnering charter is an agreement in principle and must not supersede or supplant the legal agreements in force or yet to be executed.

The partnering system for the Francisco Theater Arts Building should:

- 1) Provide guidelines by which project partnering objectives can be achieved and by which progress toward their achievement can be measured.
- 2) Reduce both the potential for, and the occurrence of, destructive conflict.
- 3) Set ground rules for maintaining project communications and other similar operating matters not covered by the contract documents.
- 4) Help identify and establish organizational relationships that enable the working project team to perform effectively.
- 5) Provide guidelines and criteria by which the project team's performance can be positively evaluated and improved.
- 6) Provide a method of revisiting and updating the charter, the partnering evaluation system, and the issue resolution system to validate, confirm, reinforce, or revise partnering ground rules as needed.

The three key partnering process components with which we will be concerned are the project charter, the partnering evaluation system, and the issue resolution method.

- *Charter* - The charter is the basic manual for operating a partnering system. It is prepared in the initial meeting for any given phase of the project, and sets the fundamental ground rules for the partnering effort. The charter usually contains a project mission and a statement of the objectives of those responsible parties who are active in designing, building, owning and operating the facility. The charter is expected to be signed by those participating in its preparation. Signatories are usually called stakeholders.

A project charter provides guidelines to maintaining project courtesy, common sense, responsible action and improved performance. The partnering charter literally constitutes a book of etiquette for non-contract behavior in project matters.

- *Partnering Evaluation* - The evaluation procedure is a simple analytical process

using measurement criteria set by the stakeholders. Measuring actual project performance against charter objectives is done regularly by the stakeholders. The evaluation is accomplished in such a manner so as to allow properly spaced observations of project success in meeting objectives. In essence the evaluation system is a report card prepared by the project team to periodically measure the health of the project, and to identify trends that should be corrected or maintained.

• *Issue Resolution* - Issue resolution is a technique by which project related disputes are resolved and closed out at the lowest management level, in the shortest time possible, and with the lowest potential for residual harm and hard feelings. Guidelines for issue resolution are an important part of the construction partnering system.

Like any ethical or moral structure, partnering is only so good as the character of its participants. Since the planning, design, and construction business is largely made up of honorable people, the potential for moral agreements being accepted and adhered to is usually high in projects where partnering is used.

The partnering concept has proved sound and has repeatedly demonstrated its worth to us in helping return to some of the trustful methods of doing business we once enjoyed. It has also encouraged us to take a closer and more meaningful look at the ways we do business. The value added by partnering can increase profitability of all parties to the project by encouraging them to work to charter missions and objectives in combination with working to contract scope objectives.

Meeting facilities and the basic equipment for the meeting will be provided by us, much as in the Francisco Athletic Facility charter meeting held last year in which you and your staff participated.

A tentative work plan for the one day partnering meeting is outlined below:

07:15 a.m. to 08:00 a.m. - Coffee and rolls for attendees.

08:00 a.m. to 08:15 a.m. - Introduction of participants - By principals for key stakeholder organizations.

08:15 a.m. to 08:40 a.m. - Brief review of project status and characteristics - by project staff.

08:40 a.m. to 09:15 a.m. - Introduction to partnering, partnering methods, and workshops - Robert K. Litton, P.E., Meeting Chair

09:15 a.m. to 09:25 a.m. - Identification of teams for break-out workshops. Note: strong efforts will be made to place those with similar interests and disciplines at tables with others having similar interests.

09:25 a.m. to 10:00 a.m. - Break out workshops - comments to be recorded by team secretaries on flip charts.

- **Workshop #1** - "What actions do others take during design, construction and move-in that create problems for us on projects like the Francisco Theater Arts Building program?"

- **Workshop #2** - "What actions do we take during design, construction and move-in that create problems for others on projects like the Francisco Theater Arts Building program?"

10:00 a.m. to 10:15 a.m. - Coffee break

10:15 a.m. to 11:15 a.m. - Complete Workshop #1 and #2 table work and teams present results of Workshops #1 & #2 as time permits

11:15 a.m. to 11:30 a.m. - Prepare individual mission statements

- **Workshop #3** - Each attendee should answer the question "What is the single most important goal to be achieved by my organization and me by the Francisco Theater Arts Building being successfully completed?"

11:30 a.m. to 12:00 noon - Introduction to Workshop #4 -how do we achieve success on the Francisco Theater Arts Building?

- **Workshop #4** - "Considering your team's comments in Workshops #1 and #2, and the mission you wrote in Workshop #3 what can all of us do to encourage good relations and excellent performance on the Francisco Theater Arts Building program?"

In Workshop #4 the table teams will begin preparing their recommendations to assist in achieving the individual missions of the stakeholders. As a starting point we should consider the following alphabetical listing of 21 subjects within which many current design and construction problems are found to originate.

- A. Approval Processes
- B. Being A Good Off/On Site Neighbor
- C. Closing Out the Project
- D. Communicating With Others
- E. Decision Making
- F. Documents and Documentation
- G. Financial Matters
- H. Inspection and Testing
- I. Issue, Conflict, and Problem Resolution
- J. Job Management
- K. Legal Matters

- L. Maintaining Regular Project Evaluations
- M. Organization, Authority, and Responsibility
- N. Planning and Scheduling
- O. Payment Processing
- P. Personnel Quality and Problems
- Q. Regulatory Agency Matters
- R. Revision Processing
- S. Staff Morale and Attitudes
- T. Submittal Processing
- U. Work-site Conditions

11:50 a.m. to 12:00 noon - The discussion leader will select three members to serve on the project mission task force. This task force will write the initial draft of the project mission during the early minutes of the afternoon session.

12:00 p.m. to 01:00 p.m. - Lunch

12:45 p.m. to 01:30 p.m. - Special project mission task force write mission draft in Workshop #5 (members of task force were selected before lunch).

- **Workshop #5** - Mission task force prepare first draft of project mission statement. Twenty five words or less - separate breakout session.

01:00 p.m. to 01:30 p.m.

Introduction to project partnering evaluation and issue resolution systems - Robert K. Litton, Meeting Chair. Subjects will include:

- What is a project partnering evaluation system?
- What is to be evaluated and how?
- Who prepares the project evaluation system?
- Who makes the evaluations?
- How is the evaluation used to improve project performance?
- What is an issue resolution policy and how is it used?

01:30 p.m. to 01:45 p.m.

- **Workshop #6** - Mission task force present first draft of the project mission to full group. Full group critiques first draft and prepares a second draft of project mission statement with the project mission task force.

01:45 p.m. to 03:00 p.m.

- **Workshop #7** - Full group begin writing partnering charter for project.

03:00 to 03:15 p.m. - Coffee break.

03:15 to 04:30 p.m.

- Continue Workshop #7 - Write charter draft and review mission statement.

04:30 to 04:50 p.m.

- Final approve, and print signature copy of project charter

04:50 to 05:00 p.m.

- Sign charter and award memento

05:00 P. M. - Adjourn

I am looking forward to meeting you and your staff on July 30, 1999 at the Questato Hotel. Please call or write our Director of Facilities, Mr. Thomas A. Lindell to let him know who will be attending from your company.

Sincerely yours,

Dr. Franklin A. Miller, President
Francisco University

