

I. Introduction

Construction disputes are fairly common, and they vary in their nature, size, and complexity. Mark Appel, senior vice president of the American Arbitration Association, stated that “[t]he construction industry...[is] really the industry that sponsors our work.” (ENR 2000). Although this statement may initially appear to be an indictment, it simply reflects the complexity of a contemporary construction project, which requires the orchestration of numerous interdependent components, including information, materials, tools, equipment, and a large number of personnel working for independent engineers, contractors, and suppliers.

Construction disputes, when not resolved in a timely manner, become very expensive – in terms of finances, personnel, time, and opportunity costs. The visible expenses (e.g., attorneys, expert witnesses, the dispute resolution process itself) alone are significant. The less visible costs (e.g., company resources assigned to the dispute, lost business opportunities) and the intangible costs (e.g., damage to business relationships, potential value lost due to inefficient dispute resolution) are also considerable, although difficult or impossible to quantify. Respected professionals estimate that construction litigation expenditures in the United States have increased at an average rate of 10 percent per year over the last decade, and now total nearly \$5 billion annually (Michel 1998, Peña-Mora, Sosa, and McCone 2003).

Over the past two decades the construction industry has made tremendous progress in developing more efficient methods of dispute prevention and resolution. In fact, experts frequently refer to the construction industry as being on the innovative edge regarding dispute resolution (ENR 2000, Hinchey and Schor 2002). Despite the progress, there remains much room for improvement.

Current practice in construction dispute resolution generally reflects one of two perspectives: that “one size (or resolution method) fits all” disputes, and that dispute resolution is a menu of independent stand-alone choices. It is more effective to approach dispute resolution in a manner similar to medical treatment – diagnose the problem first, and then select the least invasive procedure that will correct it. Because the cost-effectiveness and timeliness of dispute resolution are critical factors, this paper proposes a flexible framework – a strategic approach to dispute prevention and resolution that employs a neutral advisor, early intervention, and the ability to tailor the resolution method to the particular nature of the dispute.

II. Current Practice

A number of different Alternative Dispute Resolution (ADR) methods are currently used in the construction industry. A few of the more common methods are highlighted briefly:

- Step Negotiation generally requires the individuals directly involved in the dispute to seek resolution through direct negotiation. If a resolution is not reached within a predetermined length of time, the dispute is elevated to the next level in the organizations. This process normally continues to senior levels of each organization.
- Dispute Review Boards¹ typically consist of three neutral experts, who visit the site periodically in order to monitor progress and potential problems. When requested by the parties, the board conducts an informal hearing of the dispute and issues an advisory opinion that the parties use as a basis for further negotiations.

¹ Except as otherwise credited, information presented on Dispute Review Boards is largely based on the *Construction Dispute Review Board Manual* (Matyas, et al. 1996).

- Mediation is “a forum in which an impartial person, the mediator, facilitates communication between parties to promote reconciliation, settlement, or understanding among them.” (7 Texas Civil Practice & Remedies Code §154.023).
- Arbitration is “a forum in which each party and counsel for the party present the position of the party before an impartial third party, who renders a specific award.” (7 Texas Civil Practice & Remedies Code §154.027).

A review of widely-used standard contract forms provides an understanding of how dispute resolution is frequently addressed in contemporary construction contracts. These standard forms were developed through the combined efforts of a number of individuals and professional associations.

- The most recent version of The American Institute of Architects (AIA) standard forms added a mediation requirement prior to binding arbitration for all disputes (AIA 1997a, AIA 1997b, AIA 1997c, AIA 1997d).
- The Engineers Joint Contract Documents Committee (EJCDC) standard forms require good faith negotiations for 30 days, and allow for more definition of dispute resolution, including options for requiring either mediation or arbitration (EJCDC 1996).
- The Design-Build Institute of America (DBIA) standard forms require step negotiation, followed by mediation, prior to binding arbitration for all disputes (DBIA 1998a, DBIA 1998b).

The prevalence of construction disputes indicates that the current approach to dispute resolution is not effective enough. First, as evidenced by standard construction contract forms, dispute resolution tends to be addressed by specifying the resolution method(s) to be used. This “pre-ordaining” of the ADR method obviously cannot consider the nature of the dispute, and may in fact limit the parties’ consideration of possible resolution methods. When the project atmosphere deteriorates, parties frequently stop communicating effectively, become inflexible, and “wrap themselves in the contract.” Therefore, a contract that specifies a particular dispute resolution method, rather than a flexible process, may unintentionally result in the oversight of “less invasive” methods that are available and probably preferable.

Second, dispute resolution methods are too frequently viewed as a menu of stand-alone choices. Dispute resolution methods can be effectively combined into more comprehensive processes, where the benefits of synergy can be exploited to successfully resolve the dispute.

A more effective approach would be a *dispute resolution system* that emphasizes prevention in addition to resolution, and includes the flexibility to determine the most appropriate ADR method (or combination of methods) for each dispute, in an effort to find the “least invasive procedure” that has a strong likelihood of success. Such a system would address key industry concerns, those most commonly being the cost and time required to resolve the dispute.

III. Dispute Resolution Systems Design

Slaikeau and Hasson (1998) present a strategy to develop more cost-effective business dispute resolution systems. They describe four summary methods of dealing with conflict: avoidance, collaboration, resorting to higher authority, and power plays. Their consulting

experience has shown that the majority of existing dispute resolution systems prematurely resort to “higher authority” (e.g., boss, arbitration, litigation) or “power play” (e.g., strikes) resolution methods before fully exploring the collaborative (e.g., negotiation, mediation) options.

Slaikeau and Hasson present a comprehensive dispute resolution system template that includes four major components: site-based resolution (between the parties, with an optional appeal to internal higher authority, such as a supervisor), internal support, convening for external ADR, and appealing to an external higher authority (e.g., courts or governmental agencies). The template generally requires collaborative methods prior to resorting to external higher authority. After site-based resolution, the utilization and sequence of subsequent components are completely flexible, including the ability to “loop back” to a more collaborative component at any time.

Progressive dispute resolution exists in the construction industry, but most frequently in predefined escalation specified in the contract; for instance, the DBIA standard contract forms specify step negotiation, then mediation, and finally binding arbitration (DBIA 1998a, 1998b).

Groton (1997) presents four principles to consider when designing an effective dispute resolution system for construction:

1. “Consider the unique nature of the construction process.
2. Even when problems turn into disputes, litigation should not be the method used to resolve them.
3. If participants commit in advance to use dispute resolution techniques when problems arise, they create an atmosphere conducive to solving problems.

4. Many problem-prevention and litigation-avoidance approaches exist; these techniques are most effective when applied early in the project.”

The best practices for designing dispute resolution systems include flexibility, early intervention, exhaustion of collaborative options before resorting to adjudicatory methods, and controlled escalation of the dispute by using different ADR methods in a logical progression.

IV. A Flexible Framework for the Prevention and Resolution of Construction Disputes

Due to the number of individuals, organizations, and issues involved in a modern construction project, problems are inevitable. The desire (and/or pressure) to finish the project and a lack of resources for identifying the root cause of the problem contribute to the danger of delaying the intervention necessary to resolve disputes. Timely intervention can also prevent reoccurrences of the same problem later in the construction process. Too often, contractors submit an all-inclusive claim at the end of the project, frequently fostering an adversarial atmosphere that threatens potential collaboration between the parties on future projects. A more effective approach is to address the issues quickly, while they are manageable, determine the root causes, and correct them.

In addition to the issue of when to address disputes, there is the matter of how best to address them. Disputes vary in nature, and different disputes are more efficiently resolved through different methods. In the vast majority of construction disputes, some form of ADR is the most appropriate option. There are rare cases in which litigation is the most appropriate recourse – those in which a determination on a legal principle is required, or the establishment of a legal precedent is sought.

Even within the realm of ADR alternatives, a “one size fits all” approach cannot produce optimal results due to the varying characteristics of the disputes and of the ADR methods (Groton 1997, Hinchey and Schor 2002). The question is then, “When is the best time to specify the ADR approach to be used for a particular dispute?” The 1990 ABA forum concluded that mediations tended to be more successful when parties agreed to mediate after the dispute developed, as opposed to simply enforced as a matter of the contract (Hinchey 1990).

Considering these facts together, the proposed solution is to contractually specify a *framework* for dispute resolution that combines early intervention with flexibility in the selection of ADR methods, rather than specifying a particular method to be applied to all disputes. The proposed system concentrates heavily on proven techniques to prevent and collaboratively resolve disputes, and includes the ability to tailor the resolution process specifically based on the characteristics of each dispute. A convenor – a neutral third-party expert advisor – assists the project team in implementing the system, and provides continuity throughout the duration of the project.

No single ADR method is effective in all cases; therefore, the proposed system borrows on the military concept of “defense in depth” – that is, deploying more than one layer of defense against the enemy – in this case, unresolved disputes.

A. First Layer of Defense: Dispute Prevention

Prevention is the first layer of defense against unresolved disputes, and is an integral part of a comprehensive approach to the problem. The convenor adds value by assisting the project team in the development of applicable dispute prevention techniques, which include:

- Risk assessment and allocation, including detailed project scope definition,

- Partnering, including creating a set of common project goals, and
- Contract clauses that outline a flexible framework for dispute resolution.

The success of the project and the prevention of disputes depend heavily on the proper assessment and allocation of risk (CII 1995a). Errors in risk assessment can lead to significant changes and rework, resulting in added costs and delays. Detailed project scope definition is a major component of risk assessment, in that scope changes pose a threat to the success of the project. Changes frequently lead to contractor claims, and while a certain number of changes are inevitable on a complex project, research and experience indicate that thorough project scope definition prior to the start of detailed design avoids a large percentage of changes and their related impacts. A well-defined project scope allows the owner to effectively communicate its desires to the designer, who then has the information needed to design the project to meet the owner's needs, goals, and expectations (Gibson and Pappas 2003). The Construction Industry Institute (CII) developed a tool² that project teams can use to quantify the degree of project scope definition and create a prioritized action list of those elements that pose the most significant risk to the project. Project teams can also use the Disputes Potential Index (DPI) to assess the likelihood of a dispute by investigating risk factors associated with the parties' experience with each other and with projects similar to the one in question (CII 1995b).

Improper risk allocation frequently leads to disputes; typically this occurs when the owner uses contract language to unfairly shift risk to the contractor without appropriate compensation. Jergeas and Hartman (1996) present a collaborative approach whereby

² The Project Definition Rating Index (PDRI) is a detailed checklist of scope elements that must be addressed in the pre-project planning phase. The weighted scoring system indicates the relative risk the scope elements pose to project success if they are not sufficiently defined. Two versions are available: the PDRI for Industrial Projects (CII 1996) and the PDRI for Building Projects (CII 1999).

prospective bidders identify risks that would cause them to increase their bid price. The owner and bidders assign a value to each risk during the bidding process. The owner evaluates the bids, decides which risks to keep and which risks to pay the contractor to accept, and awards the contract based on the best combination of cost and risk allocation.

The U.S. Army Corps of Engineers developed the partnering process in the 1980s in order to fundamentally change the manner in which contractual parties relate to each other – creating a cooperative team approach rather than the more historically common adversarial approach. Partnering is a voluntary process, and joint costs are typically shared by the parties. Partnering agreements do not modify any existing contractual requirements regarding notice, changes, submittals, etc. Partnering includes working together as a team, developing a common set of project goals that the combined project team supports³, open communication and access to information, empowering participants to resolve issues at the lowest appropriate organizational level, reaching decisions and solving problems quickly and by consensus, and maintaining the relationship throughout the project (AAA 1996).

The contract's ADR clause should detail an approach that will reinforce the relationships and the team perspective when problems arise. The clause should include the concepts found in the DBIA documents (DBIA 1998a, DBIA 1998b) – specifically, beginning with a step negotiation process, and specifying binding arbitration with a “loser pays” approach as the last recourse. The step negotiation requirement should either include time limits, or specify that time limits be established as part of a project partnering workshop. Between step negotiation and binding arbitration, the clause should require the parties, at the point at which step negotiation

³ The use of tools can assist with this effort. CII's Alignment Thermometer (CII 1997) measures each team member's level of agreement on ten critical issues that indicate how well the team is aligned toward a common set

has not resulted in an agreement, to participate in an informal “convening session” and any subsequent ADR process in good faith, each party bearing its own costs. The parties should define the requirements that would “trigger” the convening session – for example, appropriate triggers might include the dollar value of the dispute, the potential impact of the dispute on the schedule or on other contractors, and the impact of the dispute on the project working relationships or communication channels.

These preventive measures are interdependent. The clear definition and documentation of needs is a critical success factor for the partnering process (AAA 1996) – one of these needs is a detailed scope definition package, which represents a significant component of the overall project risk. A partnering mindset precludes the unfair allocation of risk. Well-written contract clauses clarify expectations and set a positive initial tone for the relationship. In summary, the goal of the prevention “layer of defense” is to resolve a large percentage of disputes within the project organization – reducing the cost, time, and disruptive impacts of project disputes.

B. Second Layer of Defense: Flexible Dispute Resolution

The vast majority of disputes are typically negotiated and resolved by project participants without any external intervention. However, the planning and execution of the most thorough dispute prevention plan and step negotiation process cannot be expected to resolve all disputes on a construction project; therefore, a second layer of defense is needed. In this layer, the convenor adds value by conducting one or more informal meetings, as needed, to assist the team in resolving the dispute in a timely and efficient manner before it escalates to the point that it severely impacts the project.

of goals. CII’s method to evaluate design effectiveness (CII 1986) and Shields’ (2002) construction success metric can both be customized to reflect the project team’s definition of success for a particular project.

Undoubtedly there is the mutual goal of resolving the dispute in a cost-effective, timely manner, to the satisfaction of the parties. The optimal solution encourages the selection of an appropriate resolution method based on the individual characteristics of the dispute. This is achieved by the addition of a convening session as illustrated in Figure 1:

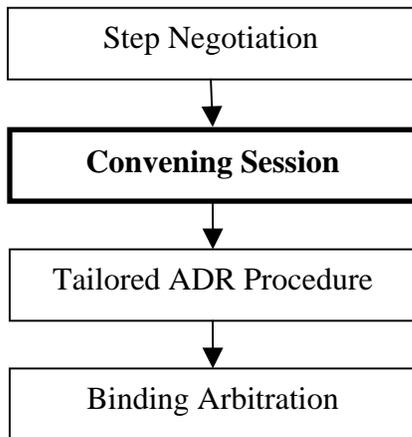


Figure 1. Convening Session within a Dispute Resolution Process

The convening session is an early proactive effort to resolve the dispute. The contemporaneous nature of the session improves the probability of resolution because the events leading to the dispute are fresh in the participants' minds, the individuals involved in the dispute can be made available to participate in the resolution process, the parties may not have had time to become deeply entrenched in their positions, and the relationship is probably not yet seriously damaged. In keeping with Slaikeu and Hasson's work (1998), the convening session first looks to more collaborative resolution methods. This approach enhances the communication and the working relationships developed in the partnering effort and required to successfully complete the current project, not to mention improving the likelihood of the parties working together on future projects. Figure 2 illustrates the details of the proposed convening session, which specifically addresses Groton's first, second, and fourth principles (1997).

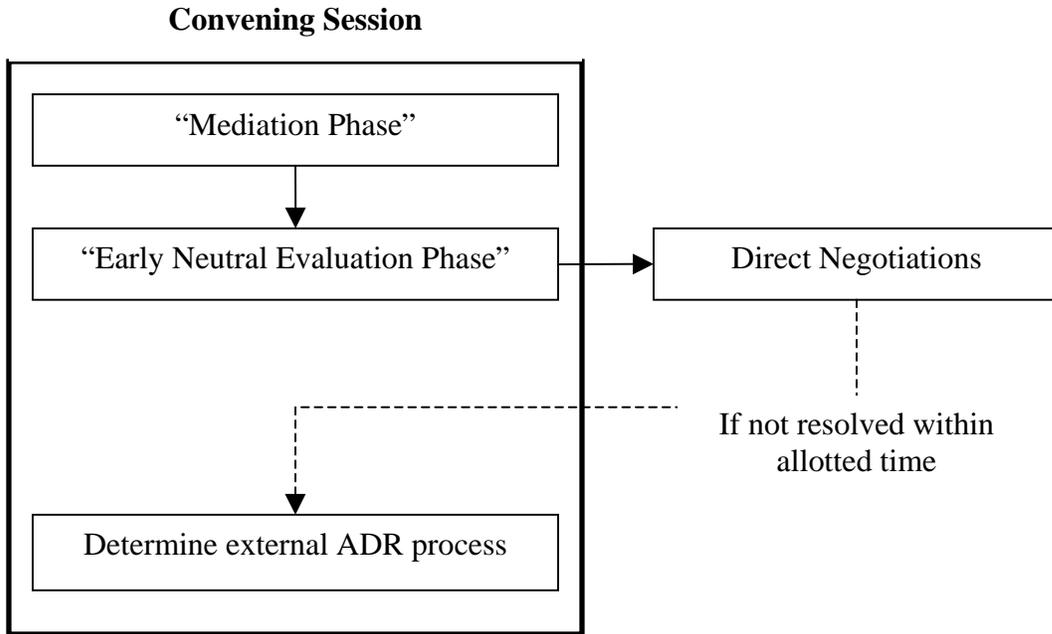


Figure 2. Detailed View of the Convening Session

The first phase of the proposed convening session is essentially a mediation facilitated by the convenor. Mediation is widely used for construction disputes, and provides an excellent forum in which to determine the scope of the dispute, explore the underlying interests of the parties, and discuss the strengths and weaknesses of their positions. A recent American Bar Association survey indicated support for “a mediator who will ‘confidentially discuss with each party the merits and potential outcomes of the case.’” (Hinchey and Schor 2002).

The main objective is not for the parties to put on formal presentations, but rather to explore interests and to identify whether the parties need any further information in order to reach an agreement. It is possible that the parties may reach at least a partial agreement, which would reduce the scope of the remaining dispute and save process time and money. The convenor, as mediator, could authorize an appropriate recess for the parties to collect further information, if needed, and reconvene the mediation for another session. The mediation phase

would not be unnecessarily extended, however, because the next phase does not require any additional parties. In the absence of a mediated agreement, the convenor would conclude the mediation phase and shift to a more evaluative approach.

The second phase is an early neutral evaluation, which “can be an excellent way [to determine] whether or not to take the dispute any further and by what method.” (Woolnough 2002). The convenor, as early neutral evaluator, provides an advisory opinion, which is a third-party evaluation of the dispute, to both parties. The early neutral evaluation is essentially a one-person DRB. The parties then have a predetermined period of time for follow-up direct negotiations.

A dispute that persists beyond the early neutral evaluation has begun to require a fairly significant amount of effort on the part of the project participants, and is likely having a disruptive effect on the project. At this point, the convening session looks like the Sander model of a multi-door courthouse with the convenor’s duties including the role of the screening clerk⁴. The convenor now has three main objectives: to confirm the scope of the dispute, determine the most appropriate resolution method, and establish the schedule and procedures (including ground rules, the degree of discovery and/or deposition required, the possible use of joint experts, etc.) for the subsequent process. The parties and the convenor have the freedom to “loop back” to a more collaborative method at any point – for instance, facilitated negotiations or a more formal mediation with an external neutral – if that is determined to be appropriate.

⁴ Frank E. A. Sander envisioned future courthouses as “Dispute Resolution Centers,” where the filing process would include a screening to determine “the [dispute resolution] process (or sequence of processes) most appropriate” to resolve the case (Sander, 1976). This approach would reduce the caseload on the court system and provide more appropriate resolution of disputes.

Even in cases where the dispute continues beyond the convening session, the proposed flexible dispute resolution system should significantly reduce the time and cost required to reach an agreement. First, this system is based on early intervention. Once the parties notify the convenor of failed negotiations, the convening session would be held as soon as arrangements could be made – a reasonable expectation would be within two weeks. The convenor would likely complete the mediation and early neutral evaluation (if needed) phases in the same day. The parties would have a few days to negotiate based on the early neutral evaluation. If further action is required, the convenor would work with the parties to determine the external procedure. The result is that the dispute would either be resolved, or the parties would have a firm scope, resolution method, schedule, and procedures to be used, within two to three weeks of the original event. Second, there are almost certainly some issues that could be agreed upon in the mediation or early neutral evaluation phases that would require no further analysis. This serves to focus or limit the areas for which legal and expert analyses (e.g., discovery, depositions, expert reports) are required.

Because this framework includes a multiple-meeting format, the convenor and the parties should clarify confidentiality issues in advance. For instance, what, if any, information from the convening session would be made available to the external ADR process, or be admissible in the (last resort) binding arbitration?

Finally, the parties retain their rights to continue to binding arbitration as the last resort if the dispute is not resolved through the external ADR process.

C. Qualifications of the Convenor

The convenor functions in a number of roles in this proposed system – dispute prevention advisor, mediator, early neutral evaluator, and dispute resolution advisor – and therefore must be a well-rounded integrator whom the parties trust to advise them in preventing and effectively resolving disputes.

It is vital that the parties both accept the convenor. The ideal situation would be a joint selection and appointment process. It is possible that the convenor’s early involvement in some of the dispute prevention techniques may precede the identification of the contractor or another party. In this case, the owner would appoint the convenor, and the contractor, once selected, would either ratify that appointment, or the parties would jointly select a new convenor.

To contribute the greatest value to the prevention effort, the convenor should have a background in the construction industry with experience in risk assessment and allocation, project scope definition, partnering, contract law, and developing effective project dispute management processes.

To contribute the greatest value to the resolution effort, the convenor should be a trained mediator, have experience with construction disputes, and be familiar with various ADR methods. The convenor need not be an attorney. In the role of a “mediator plus,” the convenor guides the dispute through various ADR methods to resolution. Mediation experience provides certain skills needed to function effectively as an early neutral evaluator and an advisor with respect to any required external dispute resolution processes. Construction expertise provides skills and experience needed to function effectively as a mediator and an early neutral evaluator.

The convenor must maintain the proper balance between facilitator, evaluator, and advisor depending upon on his or her current role in the system.

V. Conclusion

Figure 3 illustrates the complete flexible framework:

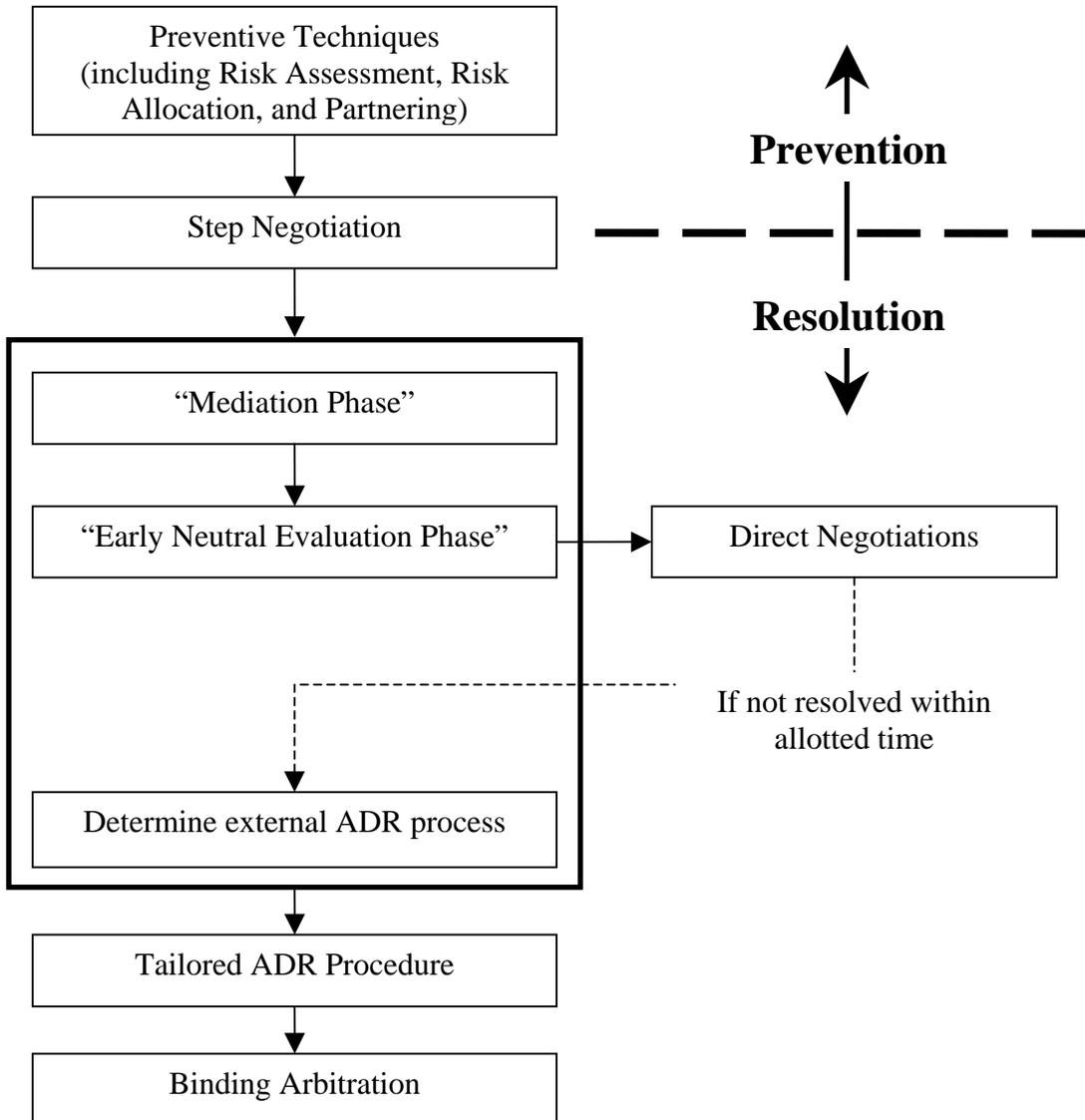


Figure 3. A Flexible Framework for the Prevention and Resolution of Construction Disputes

In summary, the proposed framework offers the following benefits:

- Provides a comprehensive system that emphasizes prevention and collaborative resolution,
- Emphasizes early intervention and contemporaneous resolution,
- Encourages resolution close to the source of the dispute, involving the parties in a participative, relationship-preserving process,
- Provides continuity through the convenor, a neutral third-party expert advisor to the project team regarding dispute prevention and resolution,
- Incorporates, by design, an important advantage of dispute review boards – specifically, the convenor is familiar with the project, the parties, and the key individuals *prior* to any need for dispute resolution,
- Defines the scope of the dispute prior to external escalation,
- Tailors any external resolution method specifically to the nature of the dispute,
- Allows targeted research, analysis, discovery, and depositions, and
- Limits the cost and time required to resolve disputes.

The proposed framework is not intended to be overly prescriptive, but rather creates the potential for added value in construction dispute prevention and resolution. It is a flexible process tailored to the needs of the construction industry, based on the best practices of dispute resolution systems design and proven dispute prevention and resolution techniques.

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