

DISPUTE RESOLUTION IN CONSTRUCTION

by

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B.S., Civil Engineering
Villanova University
(1981)

Submitted to the Department of Civil Engineering
in Partial Fulfillment of
the Requirements of the Degree of
Master of Science in Civil engineering

at the

Massachusetts Institute of Technology

September 1989

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ABSTRACT

The purpose of this thesis is to study the effectiveness of dispute resolution in construction.

Current trends in case filings and costs are addressed through industry statistics and literature review. Data from government sources and from the American Arbitration Association is analyzed to identify national and regional trends. Impacts of these trends are discussed using insurance data and industry studies. These impacts take many forms including lost construction time and higher cost of insurance due to losses. Long term insurance rate trends are compared to long term dispute trends.

Means of mitigating the impacts are discussed through industry interviews and case studies. Internal methods of reducing opportunity for dispute are discussed with the view that no system can be perfect. Methods of dealing effectively with the disputes that do arise are analyzed in detail. Costs and duration of different dispute resolution methods are presented. Lessons learned from industry are compiled and recommendations for proper application of alternate dispute resolution is proposed.

It appears that time and cost savings could be realized in construction by greater application of some proven but as yet little used alternate dispute resolution techniques.

Thesis Supervisor: Professor Fred Moavenzadeh

Title: Professor of Civil Engineering
Director, Center for Construction Research and
Education

for Uncle Teddy,
my inspiration

ACKNOWLEDGMENTS

A great deal of the information in this thesis was obtained from interviews with individuals associated with law, construction, and insurance industries. I would particularly like to thank the following:

Mr. Glen Bell	Senior Structural Engineer Simpson Gumpertz and Heger
Mr. John Miller	Partner Gadsby & Hannah
Mr. Frank Carr	Chief Trial Attorney U.S. Army Corps of Engineers
Mr. Elliott Gleason	Chief Claims Officer Design Professional Insurance Companies
Mr. Matthew J. Gallo	Senior Attorney Amoco
Mr. Robert A. Rubin	Partner Postner & Rubin
Mr. Robert S. Peckar	Partner Peckar & Abrahamson
Mr. Paul Lurie	Partner Neal Gerber Eisenberg & Lurie

I would also like to take this opportunity to thank the many people who have helped and supported me in this effort: Professor Moavenzadeh, my advisor, who kept me on schedule and pointed in the right direction. Professor Helliwell, who sacrificed his library to me for a semester. My parents for instilling in me the desire to learn and achieve. My uncle, Theodore S. A. Rubino, who is forever an inspiration to me. I will always miss him. And most of all, my wife Amy, for her love and support, and for sacrificing our time together this year.

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CHAPTER 1

Introduction

Many professional societies including the American Society of Civil Engineers (ASCE), and the National Society of Professional Engineers (NSPE) have expressed concern over the proliferation of construction disputes and subsequent increased costs of doing business in construction.¹

There is frequently much attention given to management methods for minimizing these disputes. The efforts are, without question, beneficial. However, we must recognize that no dynamic process involving human judgment can be made 100% error free, and therefore, 100% dispute free. Whether through accidents (injury), mismanagement, human error, disagreement, or lack of communication, disputes will always occur. Many, if not most, construction contract documents consist of hundreds of pages of technical specifications for materials, construction methods, performance requirements, and building plans, all unique to each project. Often, certain items are changed in the bid process or during the construction process. It is nearly impossible to avoid some error in a document of this size.

We must, therefore, ensure that those in decision making positions within the industry have a firm grasp of the most efficient methods for addressing and resolving the disputes that do arise.

The traditional mechanism for resolving difficult disputes is the court system. This is perpetuated by attorneys who make (or at least influence) most of our dispute resolution decisions, and are uncomfortable with anything outside the familiar confines of the traditional legal

1. For additional reading see The Liability Crisis, NSPE White Paper, 1985.

system. Insurance companies who are often parties to the construction dispute, seem to favor traditional litigation as well.

Even the construction industry in some sense seems resolved to litigation as an inevitable part of business. One construction text recommends, "If (your firm's) counsel is not known as a good litigator or construction attorney, better to consider another or be prepared to reinforce the attorney with an expert or much of one's time. ... The best lawyer is simply the best lawyer you can find."² While this may be good advice, it does seem to indicate a predisposition toward litigation.

The American court system has unique attributes which must be understood to make proper business decisions when disputes arise. (See Appendix 1 for an overview of the court system.) No one would dispute that it is an extremely fair system which gives all parties an opportunity to be heard and receive a just decision. However, it is a system which has become heavily loaded with cases, making it cumbersome and time-consuming for those involved.

With the proliferation of cases in our litigious society, the court system has become a slow and often expensive process. Actual costs, as well as fear of potential costs, impact the conduct of business. Disputes may affect cash flows (disputes over payment which may be held until the dispute is settled), they affect insurance coverage (liability risk exposure), insurance rates (indemnity payments and cost of settling claims), overhead (personnel time to defend and settle, plus attorneys fees), and reputation (publicity from large suits.)

Means of mitigating these costs, such as alternate dispute resolution, are often proposed. However, little is done to compare methods, or

2. Hohns, H. Murray, Preventing and Solving Construction Disputes, Van Nostrand Reinhold Company, New York, 1979

analyze the time, cost, or proper application on a head to head basis. The focus of this paper is to: 1) identify and address the impacts of dispute trends and identify practical means to mitigate them; 2) provide an overview of the state of the art of alternate dispute resolution (ADR) in construction, identify opportunity for its use, and discuss proper application.

The following chapter will address trends in numbers and costs of disputes using data obtained from federal and state government, construction sources, and insurance industry sources. Impacts of these trends on construction will also be addressed. Data is presented showing historical trends in caseloads and construction impacts such as increased insurance costs.

Chapter 3 presents overviews of successful procedures for the different forms of ADR. Applicability of each form is discussed as well as pros and cons from industry experience. Data was obtained through interviews with construction attorneys, construction managers, and risk managers. Discussions are supported with actual cases and industry data obtained through interviews.

Chapter 4 presents some noteworthy case histories of each major form of ADR pointing out exceptional aspects.

Finally, the conclusion will present a summary of ADR methods and proposals for their application.

CHAPTER 2

Liability Trends/Impacts

Much has been written on the proliferation of law suits in recent years, voicing concern over our litigious society. Whether a contract dispute with a member of the construction team, or a liability suit from a third party, the engineer today has reason to fear litigation from all fronts. Everyone associated with the construction industry is probably familiar with construction liability horror stories. The following are just a few real life examples:

Powers v. Al Cohen Construction Co.

A female plaintiff sustained a herniated disc when she fell in a pothole in a shopping mall's parking lot. She contended that the defendant construction company was negligent. The defendant countered that a plywood board was placed over the hole and that a warning sign was posted. Verdict was for the plaintiff for \$100,000.
CO, USDC/85-CV-482

Duggan v. Highlander Inn, Selzer Construction Co.

A 33 year old male service station owner suffered a neck injury resulting in quadriplegia when he dove into the shallow end of the defendant built, owned, and maintained swimming pool. He alleged that the depth markers, which were on the inside walls of the pool, were faded and obscured by the water level. He further contended that the defendant should have had "no diving" signs posted at the shallow end. The defendants denied the accusations and alleged comparative negligence. Verdict was for plaintiff for \$1,500,000.
IA 47262

Allison v. Gene Fontenot Construction Inc

A 45 year old cafeteria worker sustained a permanent soft tissue injury to the back. The plaintiff slipped and fell on a sandwich which was left on the floor by the defendant construction company's employees. It is interesting to note that in an attempt to stay out of court the defendant offered \$25,000, which was refused. The case went to trial, and although the finding was for the defendant, he still incurred attorney fees and other associated costs of defense such as employee time to help prepare the defense and court time.
LA/Calcasieu, District/86-4879

The first issue in addressing dispute trends and their impact on the construction industry is what do the trends look like, both in numbers of cases and cost.

Dispute Trends

Robert S. Peckar, a partner in the law firm of Peckar and Abramson, has specialized in construction law for 18 years. He conducts a seminar on construction law in which he cites the following statistic: In 1960 the U.S. Federal Court of Appeals system experienced 60 new case filings per judge. In 1987 it experienced 220 new case filings per judge. This represents nearly a quadrupling of the caseload that each judge is attempting to handle. The same statistic for the U.S. Federal Court system shows an increase from 250 to 470 over the same time period. This represents a doubling of filings per judge per year.

Professor Mark Galanter of the University of Wisconsin provides data compiled by the Administrative Office of the United States Courts which shows an increase of Federal Court case filings between 1978 and 1984 of ³ 122%.

Data obtained from the Administrative Office of the United States courts shows that in 1984, 24,000 civil cases were filed in Federal Court with 10M civil cases filed in all courts. These cases took an average of 18 months just to come to trial.

The figures show a definite trend toward increased case filings within the court system (an indication of our litigious society.) An interesting statistic, according to the Administrative Conference of the United States Sourcebook, is that in California one out of every hundred citizens files a lawsuit each year. However, the court does not break down statistics into specific areas such as construction disputes.

Insurance underwriters such as Victor O. Schinnerer & Co. (who

3. Galanter, Marc, "The Day After the Litigation Explosion," Maryland Law Review, Vol. 46-Number 1, 1986.

specializes in insurance of professionals), and some organizations such as the American Consulting Engineers Council (ACEC), do keep figures on the average numbers of claims filed within the A/E community. Figure 1 shows a graph using data received from the above sources to show the overall trend since 1960 in the frequency of claims filed. In 1960 there was an average of 12.5 claims filed per 100 A/E firms. In 1988 there was an average of 47. Put another way, the risk probability is that almost one firm in two will incur a claim this year, or each firm risks a claim once in two years. From an insurance standpoint, most claims are disposed of without the need for an indemnity payment. However, the services of defense attorneys, expert witnesses, and employee time necessary to establish a successful defense, can obviously be costly. Insurance does not completely cover these costs since they will come first out of any deductible that the firm has. Inevitably any losses are fed back into the determination of insurance rates. This aspect will be discussed later.

In addition to the increasing number of claims, the average value of these claims is also on the rise. Figures obtained from Victor O. Schinnerer and CNA Insurance indicate that in 1976 the average claim value against an A/E was approximately \$17,000, while by 1986 it had risen to \$67,000.⁴

Another source which follows case filing statistics is the American Arbitration Association (AAA). By any measure the AAA is the largest dispute resolution service in the U.S., handling over 20,816 commercial arbitrations in 1988. The AAA estimates that over half of the

4. Victor O. Schinnerer & Co., Guidelines for improving practice, Vol 7 #8 and MacLean William G., "Managing Liability: The Insurers Perspective," Professional Liability Division, CNA Insurance.

Frequency of Claims

of claims per 100 firms

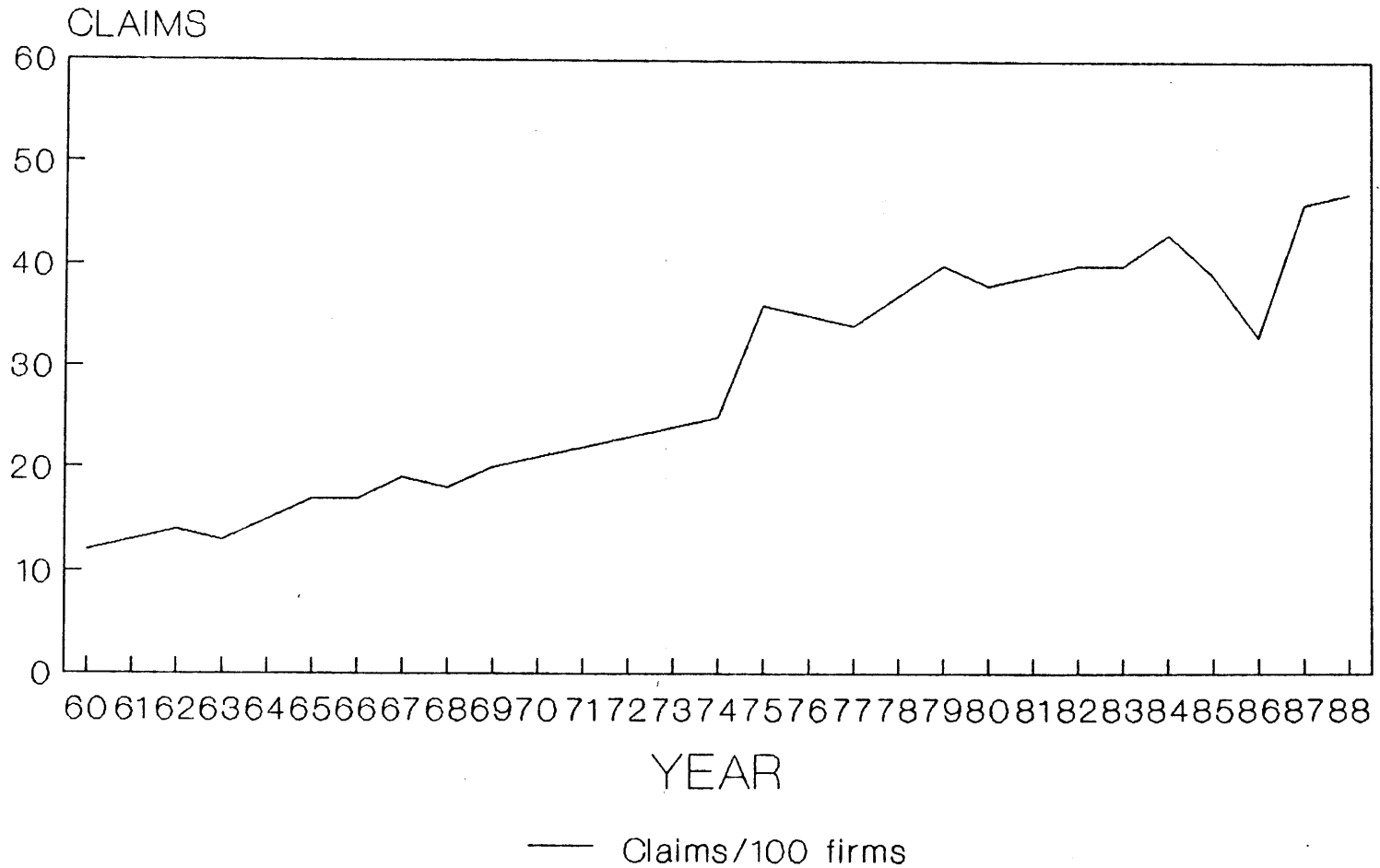


Figure 1
14

From ENR and Victor O. Schinnerer

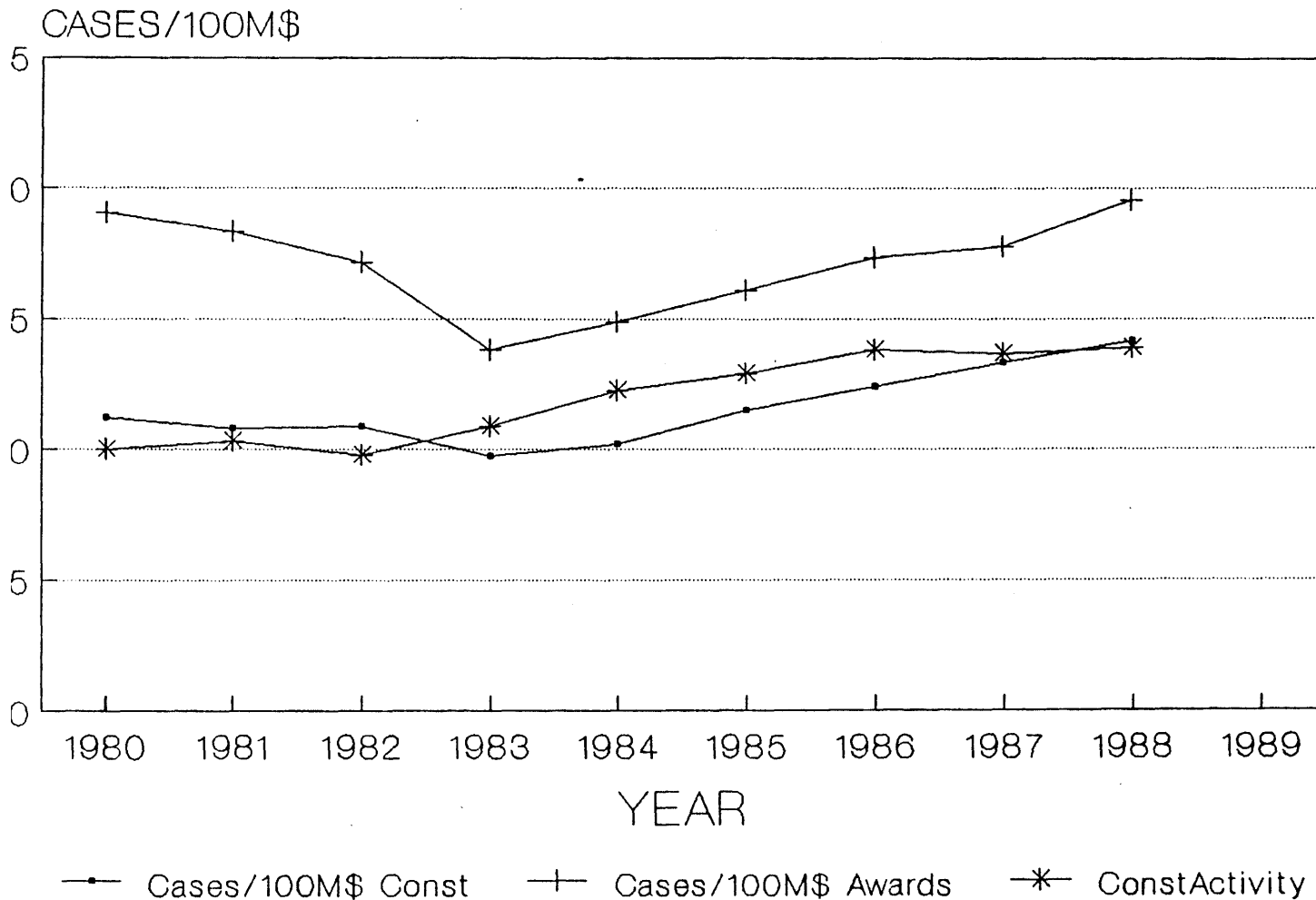
construction contracts in force in the U.S. include arbitration
5
clauses. This means that 50% of all construction contracts in which a
dispute arises are required by contract to proceed through arbitration.
AAA's caseload statistics paint an interesting picture of dispute trends
in construction.

Figure 2 presents data obtained from AAA records and from Construction Review. This shows the trend in number of construction case filings per dollar value of construction since 1980. For comparison, plots were done using both construction value put-in-place and contract award value. As one would expect these data sets produce graphs of roughly the same shape. They show a decreasing trend in claims from 1980 to 1983, followed by a gradual increase from 1983 to 1988. Note that this correlates roughly with the graph of figure 1. A third data set is included in figure 2 to compare the claim trend with actual activity in the construction industry. Construction activity was determined by discounting total construction value put in place to 1980 dollars, then plotting the figures using the 1980 figure as a base value of 1. For example a value of 1.5 would correlate to a 50% increase in real dollar activity compared to 1980. A comparison of these plots shows that claim frequency reversed itself when construction activity increased.

Looking specifically at AAAs case load, we can compare the increase in construction claims with overall increases in commercial claims. Figure 3 presents this data, showing totals since 1980 and yearly growth rates since 1985. Although construction represents a progressively smaller proportion of AAAs total caseload (most likely due to AAAs expanding

5. Rubin, Robert A., "Construction Claims - Analysis, Presentation, Defense," New York, Van Nostrand Reinhold Co., 1983.

AAA TOTAL CONSTRUCTION CASES FILED PER YEAR



Co tivity uses 1980 \$ as base line

AAA Case Filing Trends

% figures represent yearly growth rate

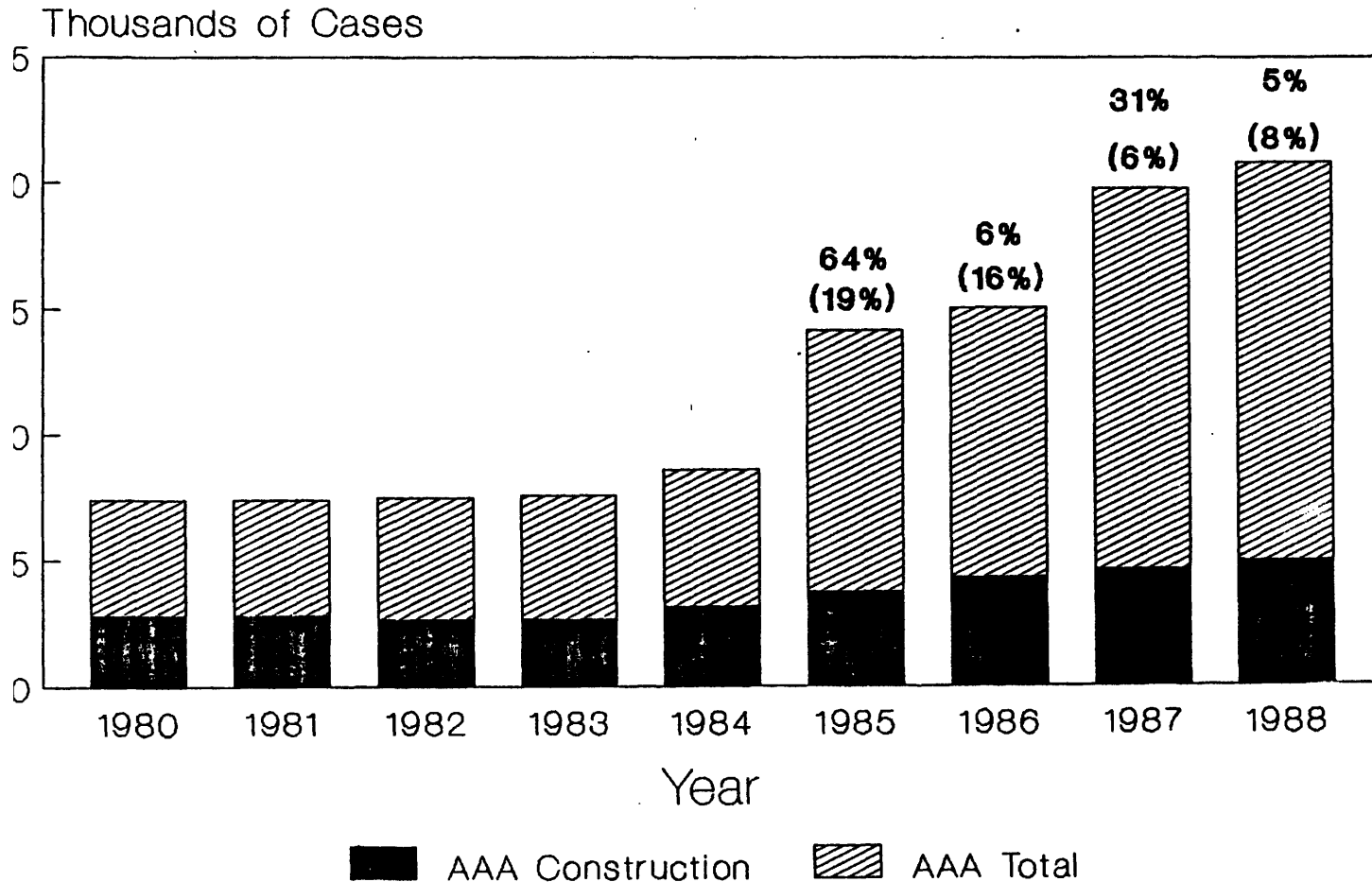


Figure 3
17

() nstruction

programs) it still represents a steadily increasing segment with a growth rate sometimes greater than that of the overall caseload (1986 and 1988). In fact, in a February press release Mr. Robert Coulson, president of AAA, noted that the commercial category showing the greatest increase in numbers of filings was construction.

To investigate possible regional trends the data obtained from Construction Review and AAA was broken out into the geographic regions outlined in figure 4. The data was then plotted in figure 5 (very little data was available from the central region.) With the exception of the Pacific Northwest and North Central regions, the graph shows a general increase in claims filed. New England and the Pacific Southwest show particularly strong increasing trends. For comparison the national average is shown in the bar group at the far right.

Figure 6 shows regional construction value in constant dollars as reported by Construction Review. Note that construction volume doesn't necessarily correlate to regions with high claim rates. For example, New England with a very high claim rate, is about average in construction volume. It is difficult to determine whether this is due to demographics, regional traditions, or business activity. It is interesting, however, to compare figure 5 with the bar chart of figure 7. Figure 7, which represents the number of registered attorneys by region, was produced with data obtained from the American Bar Association. Figures 5 and 7 show nearly identical profiles. Since attorneys generally tend to be found in highly developed business intense environments, this probably indicates that the number of disputes increases merely as a result of business intensity. Hence, the high claim rates in the highly developed, congested areas of New England and the Pacific Southwest. This disparity also tends

Composition of Regions

New Eng

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Mid Atl

New Jersey
New York
Pennsylvania

N Centr

Illinois
Indiana
Michigan
Ohio
Wisconsin

W Centr

Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

S East

Delaware
District of Columbia
Florida
Georgia
Maryland
North Carolina
South Carolina
Virginia
West Virginia

Centr

Alabama
Kentucky
Mississippi
Tennessee

S Centr

Arkansas
Louisiana
Oklahoma
Texas

PNW

Alaska
Idaho
Montana
Oregon
Washington
Wyoming

PSW

Arizona
California
Colorado
Nevada
New Mexico
Hawaii
Utah

Figure 4

Regional Claims Filed Per 100M\$ of Construction

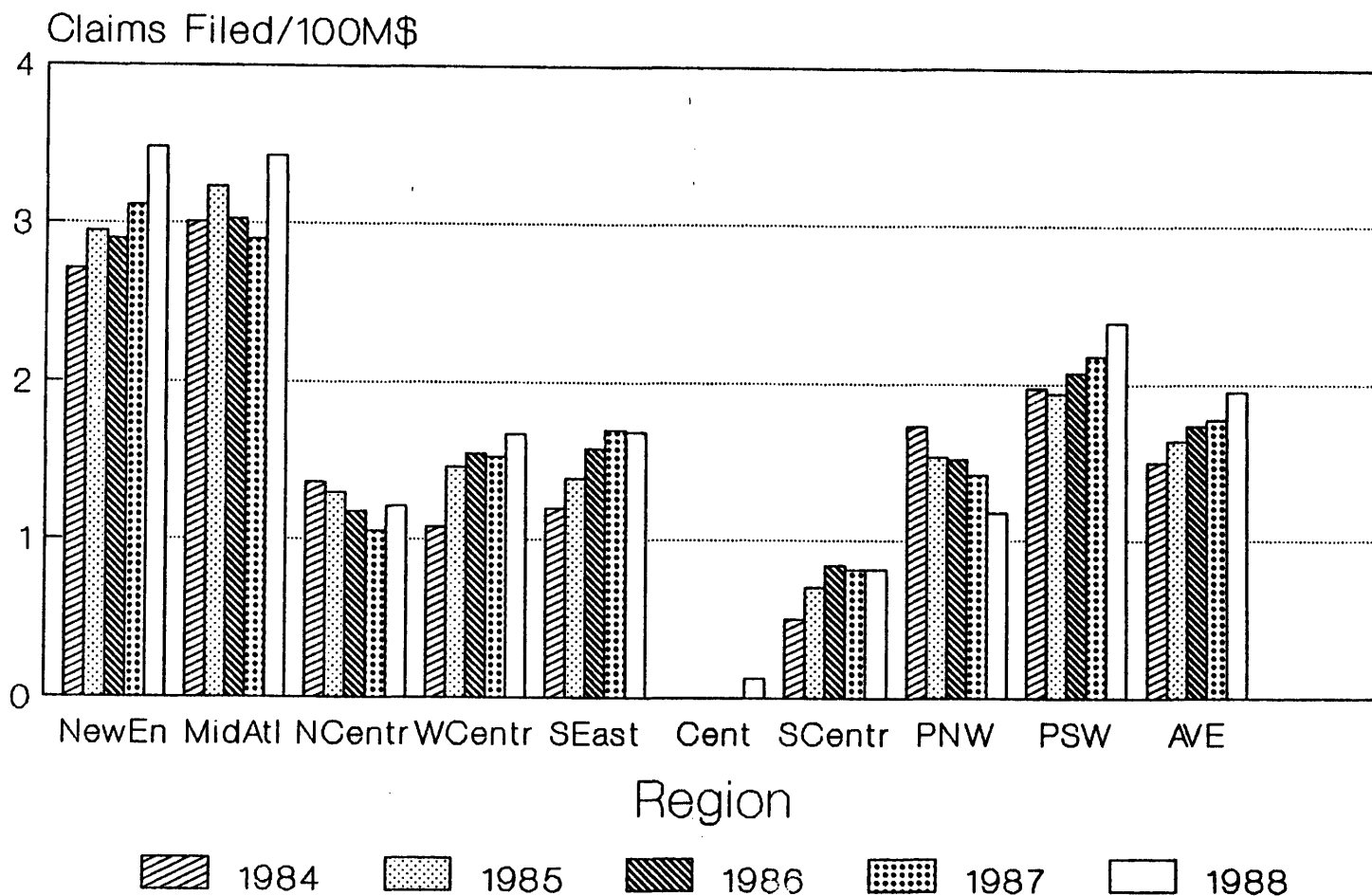
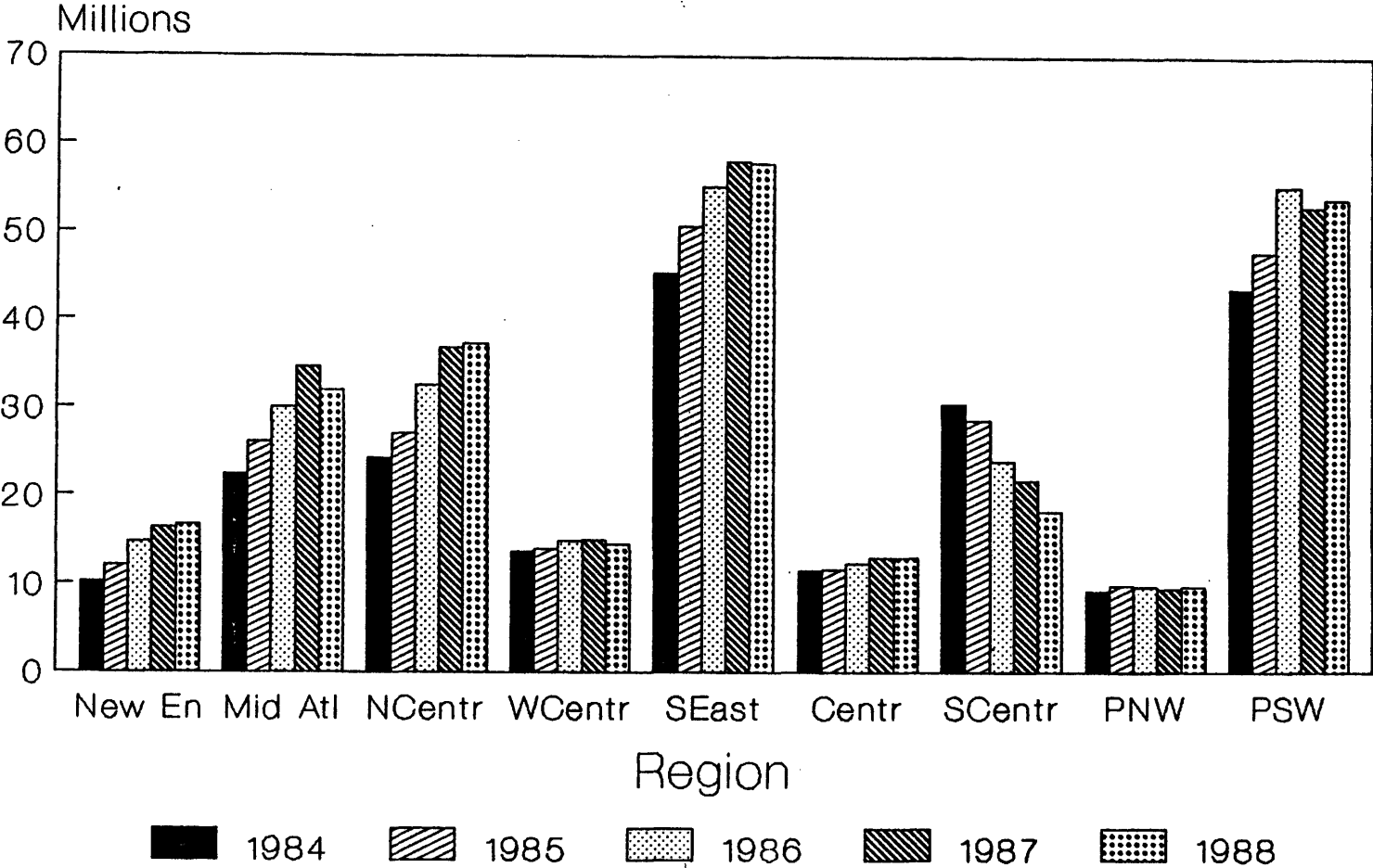


Figure 5
20

Ver le data available from Central

Regional Construction \$ (Contracts)



Construction Review

ATTORNEYS BY REGION PER 1000 POPULATION

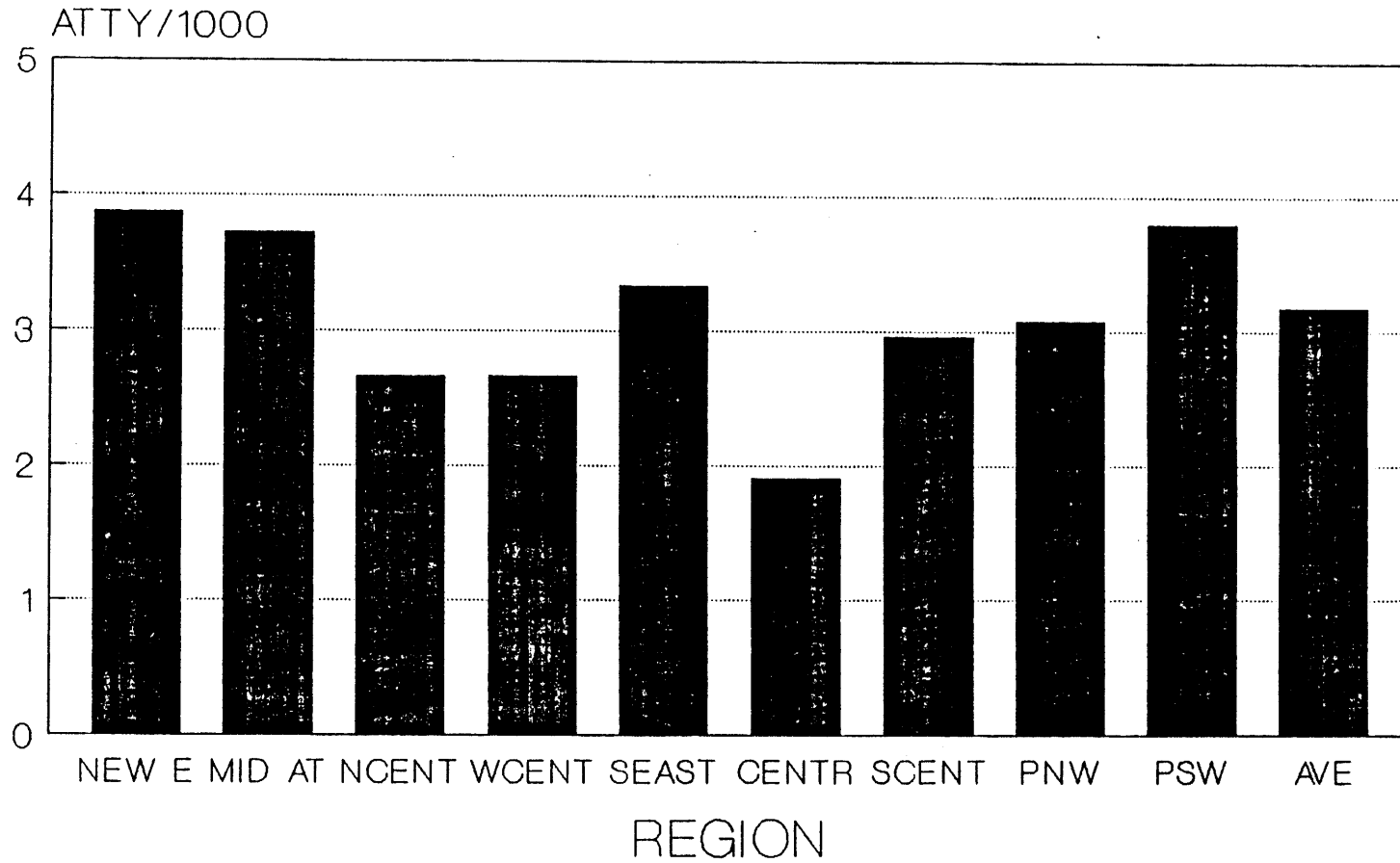


Figure 7

to suggest that the higher number of claims in these areas are unnecessary and could be resolved without formal claim proceedings.

Victor O. Schinerer reports that claims essentially fall into two categories - claims involving property damage and claims involving allegations of bodily injury. Property damage claims constitute 78% of the claims.⁶ In the time it takes the courts to process these claims they have probably also expanded to include delay damages, significantly adding to the amount of the claim. Bodily injury claims, while representing a smaller percentage of the number of claims can still be costly.

One aspect of construction related bodily injury claims that should be recognized is workmen's compensation. Most states closely regulate workmen's compensation coverage and rates. The premium is typically paid by the employer (contractor or sub). This provides a specified coverage for the worker who is barred from further action against his employer. However, the design professional has no protection from the contractors injured employee, and may still be open to negligence suits. As an example: a state funded viaduct, under construction in Denver, collapsed in 1985 killing one worker and injuring another. In a subsequent trial it was shown that the state, the contractor (Martin K. Eby Construction Co.) and the design firm (Howard Needles Tammen & Bergendoff) all shared responsibility. However, the Colorado Worker's Compensation Act exempts the state and the employer from employee lawsuits. The design firm was, therefore, held responsible and ordered to pay \$5.5 million to the families of the workmen.⁷

6. Note 4 supra Vol #3, p3.

7. Reported in Accident Aftermath, ENR September 3, 1987,.

Some of the reasons for the proliferation of these claims and the increasing amounts claimed are sociological and they will not be analyzed here. However, one generally accepted reason for this trend is the acceptance of the so-called "deep pocket" theory. Under this philosophy, a party claiming damages is afforded great lenience, with less regard to whether a particular defendant was at fault. The concept has some legal and social basis which, while arguable, is helpful to understand. Therefore, a brief discussion of the topic is provided in Appendix 2.

Insurance Trends

One of the most readily observed consequences of the claims trend is the cost of insurance or cost of risk.

Victor O. Schinnerer indicates that insurance companies determine their rates from closely studying claim frequency (number) and claim severity (expense). Greater claim frequency and severity, obviously, lead to much higher premiums. They provide the following historical data showing average premium rate increases resulting from increased claims:

1981 - 12% 1984 - 15%

1982 - 9% 1985 - 35%

1983 - 9%

They further report that less than 1/2 of premiums collected for professional liability insurance actually goes to pay claims. Most goes to defense costs and program costs. Between 1978 and 1983 average claims expenses for settling claims in which there was no indemnity payment more than doubled on a per claim basis. This is due in large part to great increases in legal costs, since even cases where no indemnity payment is made incur costs of defense. It costs only \$120 to file a suit in a

federal court (usually less in most state courts). However, the subsequent cost of dealing with that suit to trial or to settlement can be high. This cost beyond the deductible is typically borne by the insurer, who must inevitably recoup these costs. His only means is through increased premiums.

Mr David Coduto, president of Engineers Risk Services, a firm which manages design professional insurance firms, argues that one of the reasons for the increase in insurance premiums is mismanagement on the part of the insurance industry. He states that during the late 1970s and early 1980s insurance firms generated profit from investment of the cash flow produced by premium income. This worked well when interest rates were very high. Insurance firms could absorb underwriting losses and make up for it from the investment income. He points out that the invested premiums generate income for a long period of time before claims are resolved and indemnity payments made. Now, however, with much lower prevailing interest rates, the invested cash flow fails to produce a sufficient return to compensate for the increased costs of claims handling, indemnity payments and overhead. While undoubtedly some of the rising cost of insurance is due to this effect, there is no question that the demonstrated trends in claim numbers and severity of claims has contributed to insurance company losses and therefore to rate increases.

In its' White Paper titled The Liability Crisis (NSPE 1985), the National Society of Professional Engineers (NSPE) notes that engineers (and other professionals) are feeling the loss of liability insurance because it is no longer available, or because the premiums are out of reach.

R. S. Means Company, Inc. has tracked virtually all aspects of

construction costs for many years. All-risk insurance figures (that is: insurance on a building during construction that would cover all third party liability and construction related claims) were obtained from Means in order to identify cost trends. By plotting insurance as a percent of project cost we can look directly at how large a part of the project cost is going to insurance fees. Figure 8 clearly shows that builders risk insurance has tripled since 1974 compared to project cost. While it may still appear small at 1.2%, it is obviously taking a larger and larger piece of the construction dollar, and putting pressure on the traditionally small profit margins in the industry.

Additionally, when discussing the cost of settling these claims it is important to remember that a factor which is difficult to measure is the time spent by firm employees in settling the dispute. This involves time to assemble records, give depositions, testify at trial and/or arbitration hearings.

Another less obvious effect is that the high cost of risk and high fear of claims causes engineers and the construction industry as a whole to avoid anything untried. While it may be argued that this protects society from unnecessary risks, it also tends to inhibit new ideas and technological development. Everyone in the industry wants new technology, but no one will be the first to use it (see Appendix 2.)

William G. MacLean, Assistant Vice President, Professional Liability Division, CANA Insurance, states regarding construction insurance premiums, "Obviously, new technologies bring higher risks in their wake. We're not telling you not to experiment. We are just reminding you that experimental work bears risk and that, that risk is reflected in your premium."

Construction All-Risk Insurance

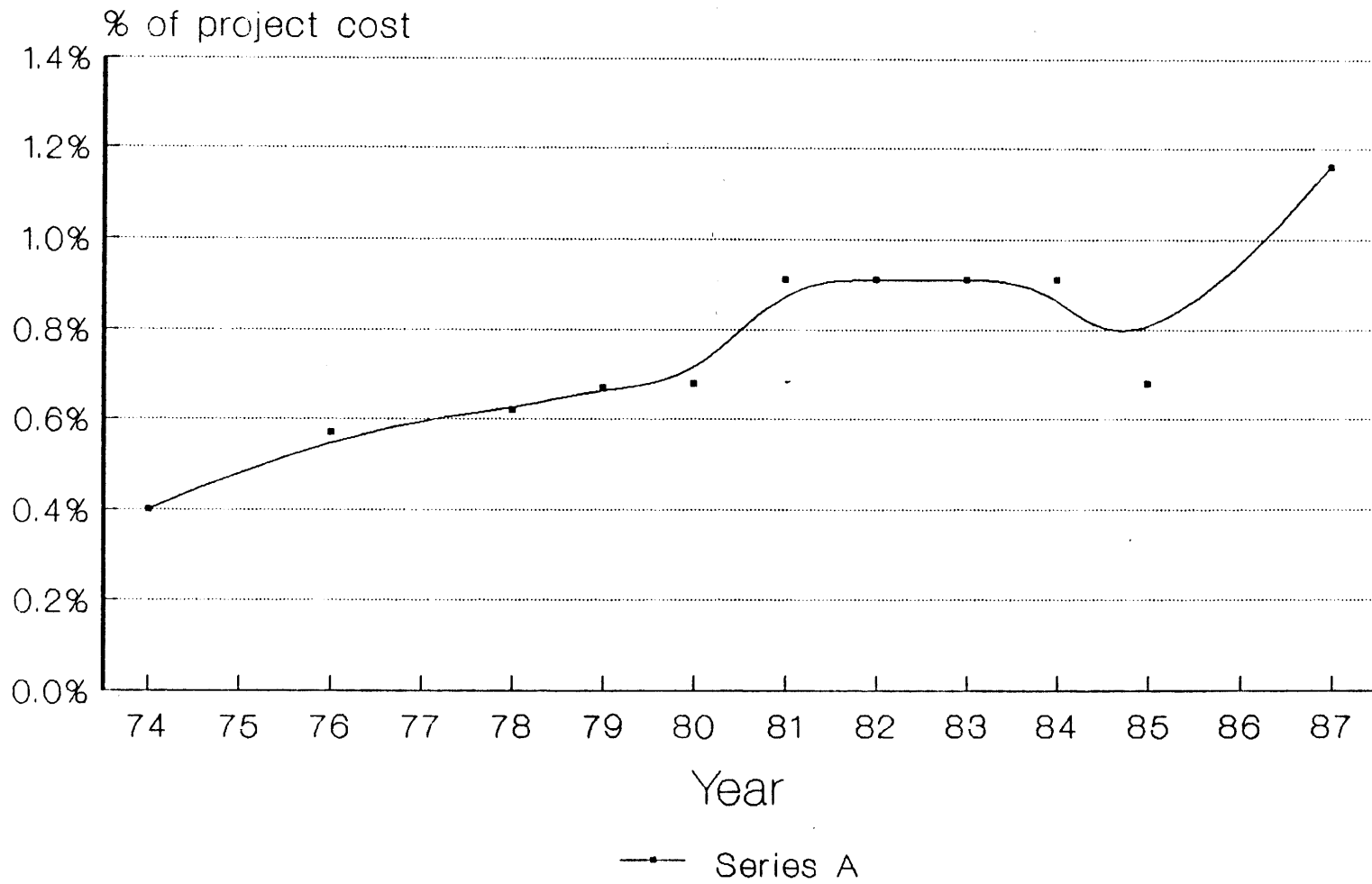


Figure 8

As early as 1979 ASCE addressed this problem at and Liability Sharing conference in Scottsdale, Az a consulting engineer and discussion panelist warned the way all industry progresses, it entails risks to claims and litigation. For a major construction exposure can be severe."

Some of the backlash of public opinion on in the example of the L'Ambiance Plaza collapse Chapter 4.) The Lift slab technique (used at I construction method, however, the unease with innovation is aptly expressed here. The lift-slab has been used since the 1950s with only one accident fatalities.) However, L'Ambiance Plaza a plan building, under construction using the lift-slab method 50% complete when it collapsed in April 1987. Following an inconclusive investigation the State Public Safety Law 29-276a banning lift-slab construction settlement among 100 parties was eventually reached protected and the case is settled. But, there is doubt about the collapse, and this method of construction is still used in Connecticut. This presents a barrier with industry knowledge. The engineering community and the industry have no opportunity to progress by learning from design error (and if so, what), or something inherent in the method of liability and the law will probably discourage investigation of the design. Meanwhile, we may never know what caused the collapse.

Remedial Action

Many suggestions have been made to try and mitigate these effects. Paul M. Lurie, a partner in the law firm of Neal Gerber Eisenberg & Lurie, is an attorney who specializes in construction law. In the American Consulting Engineers Council publication Alternative Dispute Resolution for Design Professionals, he says:

The insurance crisis has had the positive effect of causing design professionals to re-examine many aspects of the present system for resolving disputes. There is much evidence that the court system in general, and the tort system in particular, have contributed to the problems of design professionals.

One suggestion which should be mentioned has been to reform the legal system (tort reform). As explained earlier the cost to file a lawsuit is relatively small, however, even when successful one still incurs the costs of defense. Lawsuits proliferate, the argument goes because there is no disincentive for filing frivolous suits. The suggestion is to adopt the so called "English Rule" in which the losing party is required to pay the legal costs of the prevailing party. The "American System", in most cases, requires the parties to pay their own legal costs regardless of court finding. Tort reform proposals also include limiting awards, reducing attorney contingency fees, limiting application of strict liability and others. However, as long as the public philosophy supports the deep pocket theory these reforms are unlikely to remove the threat of liability.

Methods within the engineers control to reduce these costs must address one or more of the following: reducing the number of disputes, reducing the value of disputes, and/or reducing the cost of settling

disputes. The most commonly proposed remedial actions to reduce insurance costs and fear of litigation include:

- Unified Risk Insurance
- In house management controls
- Alternate dispute resolution (ADR)

The main focus of this discussion will be on ADR which will be addressed in detail in the following chapters. First it will be helpful to briefly address the concepts of unified risk insurance and management controls.

The concept behind Unified risk insurance is to provide one insurance policy covering the entire project; owner, design professional, prime contractor, subcontractors, and material suppliers. In principal if all parties to a job have the same insurance company, any work related problems would be solved jointly rather than in a confrontational mode. The owner would pay the premium with the justification that, in the long run the owner pays all the costs through fees and construction bids which must reflect the cost of insurance. Under this approach, as a liability issue arose there would not be an attempt to decide which party was at fault. The single insurance fund would pay the cost of remedial action thus minimizing the number and cost of disputes within the construction team. In order to cover special situations such a third party suits and warranty there would be three types of insurance in the unified risk package:

1. Third party suits - This will protect the construction team against third-party claims for injury or property damage. In addition, if an injured worker sues to recover beyond the limits of Workmen's Compensation, the designer/builder/owner team would defend the suit jointly.

2. Property insurance - This will cover errors/omissions and failure, in order to diffuse internal construction disputes. The designer or builder would still be liable to correct the error and forfeit the insurance deductible.

3. Warranty coverage - This covers any problems arising after completion of the project. The owner waives the right to sue any party to the project, and will be responsible for paying only the insurance deductible for future repairs.

This proposal is a significant departure from current practice. As one would expect of a new approach such as this it has met with some skepticism from the insurance industry and from owners. However, the concept is being developed and supported by a growing number of industry organizations including American Society of Civil Engineers, Associated General Contractors of America, and others.

In house management controls addresses the way we conduct business within the construction industry. This includes a wide variety internal management measures and controls. Most frequent among the proposals are:

- peer review
- design construct connection (assigning specific responsibility)
- management techniques
- safety/QC programs

Peer Review-

ASCE's manual of professional practice, Quality in the Constructed Project, defines peer review as a "structured, comprehensive and thorough fact-finding process conducted by one or more senior professionals who are separate and independent from the organization preparing a project design." In theory many of the human errors of design documents could be eliminated if each design were reviewed by at least one design professional from outside the project's design team.

American Consulting Engineer Council (ACEC) supports a popular program of peer review in which a firm may request a review of anything from an individual design to the whole firm. The review is performed by an expert or group of experts (2-4), usually from the same field, and at minimal cost. DPIC Companies, a leader in professional insurance, offers a

one-time 5% reduction in premiums to any firm that completes the ACEC's program.

West Germany has an excellent example of institutionalized peer review, as reported in ASCE's Civil Engineering Magazine, November 1988, Proof in Germany. Review consultants are federally licensed and retained by municipalities. They review all construction plans, receive 1/3 of the engineer of record's design fee and assume 50% of the risk. The German proof engineer then writes a proof report which is required prior to issuance of a building permit. In complex structures additional reports are required involving computation and drawing checks. ASCE reports that structural failures in West Germany have declined as a result.

Design Construct Connection Q/C-

Edward Pfrang, director of the National Bureau of Standards investigation of the Kansas City Hyatt Sky-bridge collapse wrote, "Everybody is quite concerned about their legal exposure. They keep pulling back and drawing very tight lines around their obligations. There tend to be some gaps developing among people's responsibilities. It used to be that responsibilities overlapped. Now things are falling through the cracks." He was referring to the trend toward separating the designer from any responsibility for construction in the field. This can lead to poor communication and poor delineation of responsibility. Thereby creating misunderstanding or miscommunication of design.

Robert Rubin, an attorney specializing in construction law and a partner in the law firm of Postner & Rubin, notes that, "Some designers have removed the word "approved" and all of its variations from shop drawing stamps. In their place they have substituted words such as "not rejected," "accepted," "examined" or "no exception taken." They hope that

these semantic substitutions will rid the review process of confusion, and minimize their legal responsibilities."

The most tragic example of this is the collapse of the sky-bridge at the Hyatt Regency in Kansas City. This 1981 collapse killed 114 people and injured 185. The failure was traced to a steel fabrication shop drawing which was reviewed by the design engineer and stamped "reviewed only for conformance with the design concept and compliance with the information contained in the contract documents." In short, no one was willing to take responsibility for the design of connections to be used in the field. The result was an improper design and tragedy. The court finally recommended in November 1985 that the licenses of two engineers be
8
revoked.

This decision is typical of the court view that, in spite of disclaimers, engineers should bear responsibility for designs which they have reviewed. ASCE has addressed this problem in its manual Quality in the Constructed Project by identifying responsibilities and where they should lie. Says Helmut Krawinkler, chairman of ASCE Committee on Structural Connections, "It should be the engineers duty to provide detailed input to connection design. Just specifying loads is insufficient. Let's not duck the responsibility where it should be ours!"
Management Techniques-

Management methods are often suggested as ways to reduce the numbers and/or cost of disputes. The Army Corps of Engineers believes that its system of management does just this, says Frank Carr, chief trial attorney for the Corps.

8. Excellent discussions of this incident can be found in the following: The Hyatt Decision: Two opinions, Civil Engineering, ASCE, September 1985; Collapse of the Kansas City Hyatt Regency Walkways, Civil Engineering, ASCE, July 1982.

The Corps' organization consists of three levels of management. Each with progressively greater dollar authority to authorize change orders and settle disputes. First, the individual district offices administer most of the contracts. The contracting officers, who award contracts and decide contractor claims, are normally found at this level. The division office acts as an intermediary level of management review for several districts. The division engineer has review authority over the district's claims and appeals and usually has an extensive engineering background. The final review in the Corps' system is at the headquarters in Washington, DC.

The Corps believes that many disputes arise simply due to unclear communication and unclear chain of decision making. The Army Corps' precise chain of command avoids both of these. Additionally, the Corp has delegated settlement authority as far down the chain as possible. Giving the manager in the field, closest to the problem, the ability to settle disputes, approve change orders and allow work to proceed, says retired Colonel George Johnson. He notes, "Progressively greater authority up the chain of command allows any dispute to be handled as soon as possible at the lowest level possible."

Safety-

Another frequently addressed cause of added construction disputes and insurance cost is safety. According to National Institute for Occupational Safety and Health figures, only mining has a higher death rate per 100,000 workers than construction. A 1984 report by the National Safety Council attributed 2,200 deaths to the construction industry, the highest of all industries surveyed. It also reported 220,000 disabling injuries. A study by the Construction Industry Institute estimates that

construction accidents cost the industry \$9 billion annually. These costs include insurance costs and uninsured costs such as lost productivity.

Flour Daniel, a major construction firm, has an extensive safety program which was recognized by the Business Round Table, with their 1988 Safe Contractor of the Year Award. Bill Scruggs a safety official with Flour Daniel points out, "look at what not having a safety program would cost. ...There is the cost of future litigation, the cost of writing reports, and the cost of time involved with OSHA. An effective program generates lower insurance premium rates, builds faith on the part of the customer and acts as a money enhancer rather than a money drainer."¹⁰

Inevitably, however, disputes will arise. No design can be 100% perfect, and no practical amount of peer review can make it so. No construction project can be perfectly safe, and no amount of management can avoid all disagreements. We must therefore, learn how to handle the disputes that do arise quickly and effectively. To that end alternate dispute resolution has been proposed. The following chapters will address this topic in detail.

9. Reported in Setting Sights on Safety, Civil Engineering, ASCE, January 1989.

10. Ibid.

CHAPTER 3

Alternate Dispute Resolution (ADR)

A 1986 study of Federal court cases reported in the New York Times (July 16, 1987) showed that 95% of cases are settled prior to trial. However, most of these cases were settled only after the expensive and time consuming process of discovery, depositions, and motions conducted by both sides attorneys (see Appendix 1) This begs a question: If the parties will most likely agree to eventually settle the dispute, are there any methods to bring about a meeting of the minds more quickly and more cost effectively than the court process?

Data available is admittedly limited. Partially because some methods have seen little use. Partially because some methods are intentionally confidential and the settlement and costs are not made public. It is also difficult to directly compare cost savings between two different disputes because one can never know for sure what the outcome would have been had another method been pursued. In these cases industry interviews with attorneys, construction managers, and risk managers, have provided some insight into the use of ADR. Also, actual cases and industry studies are presented. Through them we may gain some insight into the use of ADR in the industry, if it works, and when it works.

Many of the forms of ADR discussed are contractually based and therefore may take different forms as to the specifics of their application in industry. The methods described here are the manifestations seen most often and seen most successfully in the construction industry. For example arbitration proceedings may differ from those described here. However, this description has been most

frequently seen in construction applications, and has proven successful. The discussion also incorporates industry lessons learned and advice from interviews with leaders in the field.

A reminder: To assist in comparison Appendix 1 provides an overview of the U. S. court system.

Arbitration

As noted previously, the American Arbitration Association (AAA) is by far the largest dispute resolution service in the U.S. In the mid 1960s AAA formed the National Construction Industry Arbitration Committee (NCIAC). Comprising representatives of numerous national construction-oriented organizations, the Committee helps AAA develop procedures and panels of arbitrators particularly suited to the construction industry. More than 30,000 arbitrators, representing all segments of the industry, now serve on the AAA's national construction panel. Again, the AAA estimates that over half of the construction contracts in force in the U.S. include arbitration clauses.

Simply defined, arbitration is a process in which a dispute is submitted to a third party or neutral (or sometimes a panel of three arbitrators) to hear arguments, review evidence and render a decision. Arbitration is the oldest type of formal ADR used by the nation's construction industry. It was first applied in standard-form construction agreements as early as 1871. There is still a steadily increasing trend in the use of arbitration in construction. AAA reports that in 1966 it handled 600 construction cases. By 1978 there were 2,400. Michael F. Hoellering, AAA general counsel, recently presented data showing that the AAA's construction arbitration caseload rose from 3,735 in 1985, to 4,317 in 1986 and 4,584 in 1987. Most claims fell into the range of \$500,000 or below, but 121 cases involved amounts of up to \$1 million, and 117 were

11. Rubin, Robert A., "Construction Claims - Analysis, Presentation, Defense," New York, Van Nostrand Reinhold Co. 1983.

12. Coulison, Robert (1980) Business Arbitration - What you Need to Know. New York: American Arbitration Association.

for claims of more than \$1 million. AAA also reports that in 1988 Construction represented AAA's largest growth area.

Arbitration can be voluntary or involuntary, the distinction being whether the parties agreed on arbitration prior to the dispute arising (in the contract) or after the dispute (through mutual agreement). In either case, arbitration is an adversarial procedure through which disputants present their cases to an arbitrator whose decision is binding and court-enforced.

When included in the contract, the arbitration procedures referenced are typically the Construction Industry Arbitration Rules of the American Arbitration Association, shown in Appendix 3. Contract language calling for mandatory or provisional use of those rules is shown in Appendix 4.

At least nine national professional organizations refer to the AAA construction industry rules in their recommended contract documents. These include The American Institute of Architects, the American Consulting Engineers Council, the Associated General Contractors, the Mechanical Contractors Association, the National Society of Professional Engineers, the American Society of Civil Engineers, Construction Specifications Institute, and the American Subcontractors Association. This is the case with all AIA standard form contracts. Each form contains a specific agreement between the parties to the contract, to arbitrate all disputes or claims arising from performance of the contract. If this clause is used then the parties have no choice but to arbitrate, unless they mutually agree on a different method of resolving the dispute. If an arbitration clause is not present in the contract, the parties may still submit to arbitration after the dispute has occurred.

The parties to the dispute simply record their agreement to arbitrate in writing and refer the dispute to an arbitrator.

However, in the absence of such a clause, one party cannot compel another to arbitrate a dispute. In the experience of Robert A. Rubin, an attorney who specializes in construction law, and is a partner in the New York law firm of Postner & Rubin, agreement after the fact is rare. "One party invariably perceives arbitration not to be in his best interest after a dispute has arisen."

It should be noted that many court systems are directing that disputes be taken to arbitration prior to proceeding with litigation regardless of contractual provisions. This "Court-Annexed" arbitration is usually non binding and therefore has different effects on the dispute resolution process which will be discussed later.

A typical arbitration can be broken down into 4 phases.

Initiation-

An AAA sponsored arbitration is initiated when one party files a demand for arbitration, accompanied by a filing fee based upon the amount in dispute (shown in Appendix I). It should be noted that it is not necessary to follow the AAA rules. There are other frameworks within which an arbitration can be carried out. If none is specified in the contract, then the arbitrator selected by both parties will stipulate which rules he will follow. John Miller, a partner in the law firm of Gadsby & Hannah who specializes in construction law, cautions that this can in itself be cause for disagreement. It is, therefore, advisable to identify the set of rules by which disagreements will be arbitrated in the

contract. As noted, AAA's rules have been used extensively and very successfully within the construction industry. These rules provide a procedure for selecting the location of the proceeding, selecting the arbitrator, presenting evidence, and necessary administrative rules.

Where there is no agreement to arbitrate in the contract, a submission must be signed by both parties. It should name the arbitrator (or method of appointment), and identify the rules to be followed for the arbitration proceeding including: the arbitrator's authority, the procedure to be used at the hearing, statement of the matter in dispute, the amount of money in controversy, and remedy sought.

If the arbitration is being conducted under the auspices of the AAA, they will provide a list of 10 to 20 potential arbitrators from which the parties must make their choice. In selecting the arbitrator experience in the field in which the dispute arises is desirable. Legal training is often helpful but not indispensable. Arbitrators have their expenses paid and receive a sum for their services, usually in the range of \$250 to \$400 per day.

An arbitrator has broad powers under the Construction Industry Arbitration Rules. As described by AAA:

These include the authority to: consider amendments to the claim or counter-claim; schedule, close, and reopen hearings; determine if any person not directly involved can attend the hearing; grant or deny hearing adjournments; and conduct an arbitration in the absence of a party after due notice. Where authorized to do so by law, the arbitrator may subpoena witnesses or documents independently or at the request of a party. The arbitrator can also receive, consider, and weigh any evidence including evidence of witnesses by affidavit;

conduct a viewing of the project site during the pendency of the arbitration hearings; grant interest on the award; assess arbitrator and expenses equally or in favor of any party; and determine issues of arbitrability.¹³

Prehearing-

Since arbitration is binding it is essential that both parties be well prepared for the proceeding. The extent of prehearing discovery is usually determined by the arbitrator. The advantages of speed and simplicity are balanced against the complexity and time required for extensive discovery. Ordinarily, most or all of the arbitrator's knowledge and understanding of a case is based upon evidence and arguments presented at the arbitration hearing. Generally, the arbitrator, after accepting the office, designates the time and place of the hearing, by mutual agreement of the parties if possible.

For complex cases the arbitrator may wish to schedule a prehearing conference. This is normally administrative in nature, and provides an opportunity to bring the opposing sides together to exchange information and stipulate to uncontested facts. Hearing schedules are also discussed as well as, a description of claims and counter-claims, exchange of witness lists and brief outline of testimony, arrangements for the exchange and marking of exhibits, and any other special arrangements in connection with the arbitration. Discussion of the underlying merits of claims or defenses of the parties are avoided during a prehearing conference. Private conferences between the arbitrator and a party are

13. Alternate Dispute Resolution for the Construction Industry, American Soil and Foundation Engineers, 1988.

forbidden.

Hearing-

Since arbitration is a private proceeding, the hearing is not open to the public. Parties are usually represented by counsel. Witnesses may be called in to testify and other formal courtroom procedures can be incorporated.

It must be remembered that this is not a court of law and many significant protections, such as the rules of evidence, pretrial disclosure, and mandatory consolidation and joinder, are lost in arbitration. However, the arbitrator's decision is final, binding and not appealable. Therefore, all decisions on disclosure, evidence, and the final award are completely at the discretion of the arbitrator.

A formal written record of the hearing is usually omitted. Witnesses testifying at the hearing may be required to take an oath if required by law, if ordered by the arbitrator, or on demand of any party. Opening statements are made orally by each party in a brief, generalized format. They are designed to acquaint the arbitrator with each party's view of what the dispute is about and what the party expects to prove by the evidence. The parties may offer any evidence they choose, including personal testimony and affidavits of witnesses. They may be asked by the arbitrator to produce additional evidence if he feels it necessary to determine the dispute. Finally, the parties make closing arguments, usually limited in duration.

Decision-making-

When the issues are not complex, an arbitrator may render an immediate decision, in complex cases he may require several weeks. The award is the arbitrator's decision. It may be given orally but is normally written and signed by the arbitrator. Awards are normally short and final as to all matters under submission. Occasionally, they are accompanied by a short opinion. The award is judicially enforceable and, to some extent, reviewable. However, it can only be reviewed to identify misconduct, not to identify legal or factual correctness of the arbitrator's decision.

When studied carefully these procedures have several significant impacts on the dispute resolution process which one must be aware of when evaluating the suitability of arbitration for dispute resolution.

Technical expertise of arbitrator - Arbitrators in construction cases are usually selected from the AAA's Construction Industry Arbitration Panel. This panel consists of experienced professionals from the construction industry. Arbitrators with this background are more apt to have a full understanding of the issues technical and otherwise, peculiar to the construction industry, on which the case depends. It is, therefore, easier for them to grasp the technical and construction specific considerations inherent in a construction dispute than it is for a judge or jury. This allows greater efficiency in presenting the case. John Miller points out that, an additional benefit viewed from the A/E standpoint is that an experienced member of the construction industry will be less likely to apply standards of strict liability on design disputes.

Confidential - Arbitrations are conducted in private. Outside parties are excluded from the hearing, and the arbitrators' decision is not a matter of public record. Therefore, the opportunity for adverse publicity or for setting precedent for other disputes is minimal.

Limited legal review - Courts rarely interfere with arbitration awards, even when the arbitrator's decision is generally regarded as unfair. Arbitrators' written decisions are intentionally brief and do not need to specify the rationale which led to their decisions. Successful appeals are usually permitted only in the case of fraud, when an arbitrator was clearly biased by an undisclosed affiliation with one party, or when arbitration rules have been seriously breached (ie. the arbitrator refuses to receive relevant evidence.) According to one court decision (Trustees of Boston & Maine Corp. v. Mass. Bay Transportation Authority, 363 Mass. 386, 294 N.E.2d 340), "arbitrators can make erroneous factual conclusions and apply law erroneously, yet still arbitration awards must be confirmed." John Miller cautions, "To a defendant in a construction dispute who is holding the money, this is often perceived to be a disadvantage, since once the arbitration award is issued, judgments routinely and quickly follow, with little or no right of appeal." Therefore, it is usually unprofitable for the losing party in an arbitration to try to attack the award in court.

To ensure impartiality on the part of the arbitrators, the law requires that arbitrators disclose any relationships with a party or their counsel which could impact impartiality. Commonwealth Corp. v. Casualty Co., 393 U.S. 145, is such a case, in which the U.S. Supreme Court reviewed an arbitrator's award. The arbitrator was the owner of an

engineering firm that had provided services to construction companies in the past, including services to the prime contractor who was a party to the arbitration. Even though the award was viewed as fair, the Court invalidated it because the arbitrator had neglected to disclose his past dealings with one of the parties to the arbitration at the time the arbitration began.

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Informality - Arbitrations are not bound by the formal rules of evidence or formal procedures for discovery in advance of the hearing, so the process moves more quickly than a court proceeding. The disadvantage to this is that a party who wants strict rules of evidence to be applied or who wants full and precise discovery from the opposing party may not obtain this degree of detail in an arbitration. (Discovery from third party witnesses can also be difficult.)

Limited to two parties - Since arbitration must be voluntarily agreed upon in the contract, it generally involves only the two parties to a specific contract. Therefore, parties who have not agreed to the proceeding cannot be forced to do so. If, for example, an owner demands arbitration of a construction manager claiming defective work, the CM would probably want to include the particular subcontractor whose work was at issue. In general, this cannot be done through arbitration, creating the possibility (and complication) of multiple proceedings and the risk of inconsistent results.

14. Architect-Engineer Liability Under Massachusetts Law, John B. Miller, Stanley A Martin, The Cambridge Institute, 1988.

Obviously, these impacts have a positive or negative effect on the dispute resolution process depending on ones perspective. For example, the process is conceivably faster than the court system, but much of this speed is gained at the expense of the discovery process. It must be remembered that arbitration is still a binding adversarial process. Therefore, under certain circumstances the lack of discovery and rules of evidence must be cause for concern. Through the court system's pretrial disclosure, one party can obtain, in advance, the adverse party's evidence supporting its claims and, also, evidence that would support the party's defenses or counterclaims. This can save time at trial, prevent surprise, and lead to settlement in advance of trial when all the facts are known to both sides. Additionally, the lack of rules of evidence creates the risk that irrelevant or otherwise untrustworthy evidence may be admitted (such as hearsay). The lack of these processes in arbitration increases the chance that one party may be surprised by unknown testimony or facts or documents to their detriment (possibly unfairly). They are then bound without right of appeal to the result.

Another consideration of the lack of discovery and rules of evidence is that it can also cause witnesses to be examined far longer than in trial since there have been no prehearing depositions and the hearing itself is the only avenue open to discover what they know and allow it to be heard. This tends to lengthen the time required for hearings.

Speed is, therefore, a controversial issue for consideration in the use of arbitration. AAA conducts a yearly survey of 400 construction cases closed nationwide. Their figures show consistently that, about 55 percent of the cases ended with awards: the others were settled or withdrawn. The surveyed cases have taken an average of 200 days, or six

and a half months including an average of two hearing days from filing to completion. In the most comparable category for which the Administrative Office of the U.S. Courts keeps statistics - Miller Act cases related to construction and renovation contracts for public buildings - the federal courts disposed of 948 contract cases between July 1, 1983, and June 30, 1984. The median time from filing to disposition was nine months. More than 50 percent of the cases were dismissed or withdrawn before court action in a median time of seven months. The 2 percent that went to trial were disposed of in a median time of 17 months.¹⁵

These facts are confirmed by a study reported by Prof. Herbert M. Kritzer of the University of Wisconsin. He presents data collected by the Civil Litigation Research Project (CLRP) on 1,500 court cases in five federal judicial districts; (the cases were evenly divided between the state and federal courts), and the caseload of the AAA. Dispute values ranged from \$1,000 up. He finds that only about 5% of court cases are fully adjudicated, compared to over 50% of AAA arbitration cases. This clearly suggests that the probability of obtaining adjudication is greater if a case is taken to arbitration than if the case goes to court. His findings regarding pace were not decisive but he says, "Overall, the AAA is not slower than the court system, and it is usually faster."¹⁶

Although these studies show arbitration to be on the average slightly faster than courts, the difference does not appear to be overwhelming.

Conventional wisdom says that because arbitrations are informal and apparently relatively quick, the amount of time spent by attorneys and in

15. Arbitration: The Slower, More Expensive Alternative?, James Lyons, The American Lawyer, January/February 1985.

16. The Arbitration Alternative, Herbert M. Kritzer and Jill K. Anderson. Justice System Journal Vol. 8, No. 1, Spring 1983.

house staff involved in arbitration is generally less than that involved in a court case. However, there are additional fees according to claim size, arbitrators' fees, and sometimes the expense of the hearing room. These fees may not be entirely offset.

Further information provided by the CLRP study addresses costs. The result of the costs can be seen in figure 9, Across the range of values, no one institution emerges as most or least expensive. The AAA is least expensive for small cases, and most expensive for the remaining three categories. Federal court is least expensive in the 5 to 10 thousand dollar range, and state court is least expensive in the upper two ranges. What these results suggest is that one should not turn to arbitration if the goal is to save processing costs; if anything the AAA may be a little more expensive. At the same time, in a sense, one gets "more" for the money in terms of the amount of institutional processing, with the AAA, because a much larger proportion of cases go through the "complete process", including a hearing and award.¹⁷

Robert S. Peckar, a partner in the law firm of Peckar & Abrahamson who specializes in construction law, notes, "As arbitration has become more institutionalized, occasionally it has acquired some of the worst attributes of judicial dispute settling which made arbitration a desirable substitute."

In fact, Robert Coulson, president of AAA since 1972, dropped AAA's original motto, "Speed, Economy, and Justice." He says:

"People used to promote arbitration with those adjectives like religious zealots. I don't think any of those words are entirely accurate. Justice in the strict sense, is what the courts do. And we don't sell arbitration by and large on the basis of speed and

17. Ibid.

Settlement Fees By Stakes and Forum

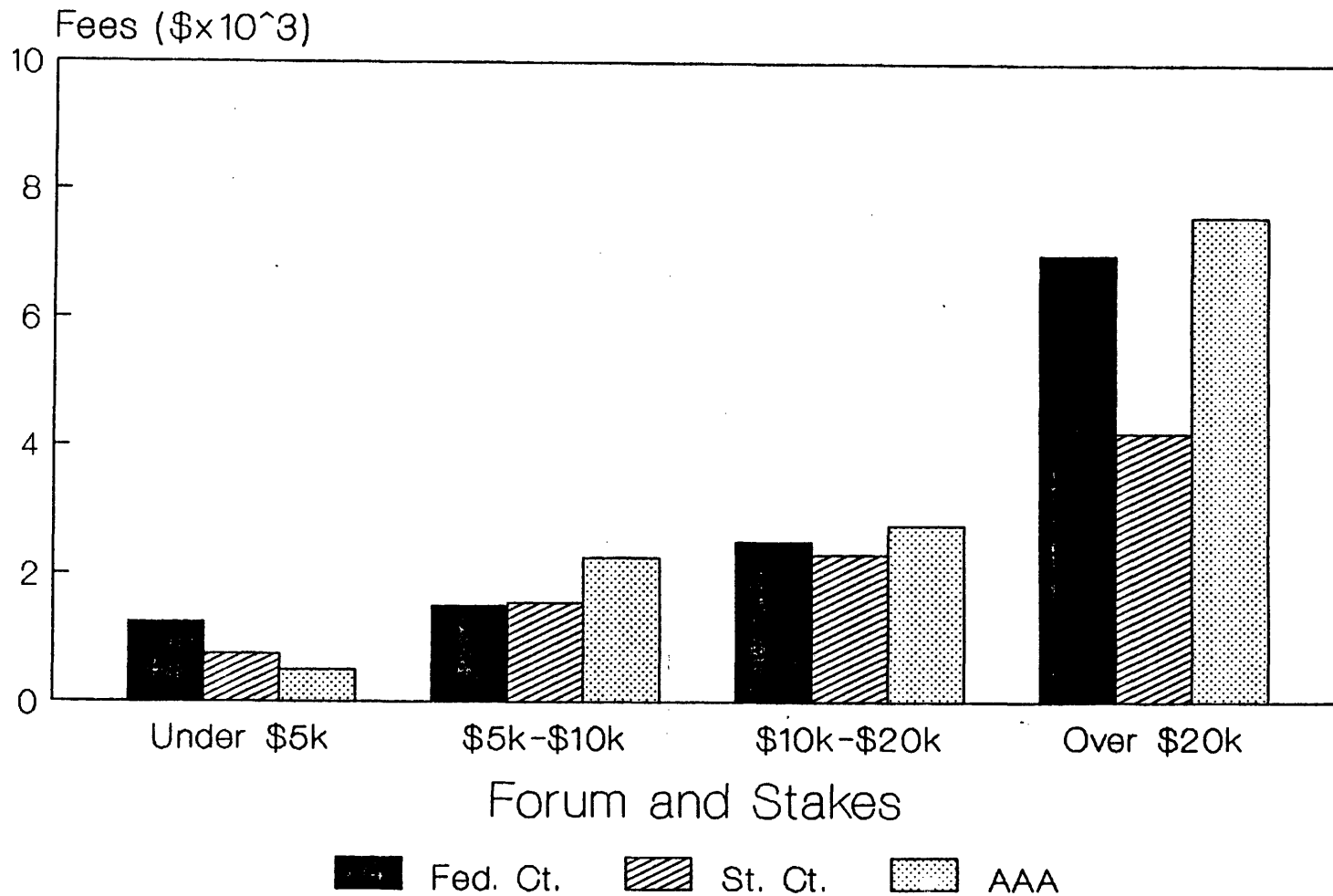


Figure 9
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economy...People choose arbitration mainly to have something resolved in a private setting, by people who are knowledgeable...so that the parties can get an award that is final and binding. The arbitration process can be subverted by determined parties. Arbitration...is not a panacea. Arbitration can become bogged down in legalisms if the arbitrators and the parties permit that to happen...The AAA can push a warning buzzer. Still, it is up to the parties."

One notorious example is a \$9 million dispute between Condec Corporation and Kaiser Aluminum over the fabrication of aluminum panels. This shows what can happen if the parties hire large outside law firms, call large numbers of witnesses, and present elaborate technical arguments. The case took eight years to resolve, involved more than 30,000 pages of transcripts, 5,000 exhibits, 2,500 pages of briefs 200 hearing days, and a final opinion of more than 600 pages - all for what was basically a contract dispute with a claim of \$9 million. Condec spent \$5 million in legal fees and \$350,000 in arbitration costs.¹⁸

Kenneth Cushman, a litigator with Philadelphia's Pepper, Hamilton & Scheetz, who has handled more than 25 construction arbitrations, several in the multimillion-dollar range says, "With the factually complex construction dispute, both arbitration and litigation will be expensive and time-consuming. I tell my clients that it should cost just as much for a complex construction arbitration as it costs for litigation."

Steven McCormick, a litigation partner at Chicago's Kirkland & Ellis, puts some of the blame for cost inefficiency on the AAA rule that does not provide for extensive discovery. Last year McCormick handled a \$1.5 million breach of contract arbitration that was eventually settled for a lower sum. "It was a trial without discovery. While we saved money not deposing people in the short run, we later made up for the cost...by having to keep witnesses on the stand longer than we ordinarily do. If I

18. Note 5 supra.

were a client, I would not want arbitration because it can be just as expensive as litigation, and you can't do responsible discovery..."

Says Rubin, "From an attorney's standpoint, preparation for an arbitration is often more difficult than for a traditional trial. Since arbitration has more relaxed procedures, a witness is made more vulnerable and must be prepared for any eventuality and lines of questioning that would otherwise be precluded in court."

In another example, *Lesser Towers Inc. v. Roscoe-Ajax Construction Co.*, 271 Adv. Cal. App. 776, 77 Cal.Rptr. 100, the court noted that arbitration "is not always a simple, expeditious or inexpensive method of adjudicating commercial controversies." This case involved an action to confirm an arbitrator's award which related to a construction contract for a twenty story apartment building.

The total length of time for arbitration was 19 months; 202 days of hearings, and three days of oral arguments. The reporters transcript of the proceeding was 25,000 pages long. 1,500 exhibits were introduced. Over \$400,000 in arbitration expenses, exclusive of attorneys fees, were incurred.

Before the arbitration even began, each party went to court to obtain rulings relating to the arbitration. After the owner had put in his claim in the arbitration, the contractor sought to introduce evidence of a counterclaim. At this point, the owner refused to arbitrate and went to court to restrain the arbitrators from considering this claim. Ultimately, the arbitrators ruled for the owner, but the owner had to go to court again to get an order confirming the award.

Looking strictly at the cost and complication of this fairly straightforward case, it is obvious that arbitration has the potential to

become as lengthy and expensive as court proceedings.

Robert Peckar, has been highly active in construction law for 18 years. He has spent much of the last two years lecturing on the pros and cons of different methods of dispute resolution. He feels that in general, arbitration has no real cost savings over the court system.

Mr. Peckar has attempted to do a "head to head" comparison of arbitration cost and litigation cost, to illustrate this point. In his lecture he presents 2 similar sized cases from his background of case knowledge. One an arbitration one a litigation. Both are of approximately \$3M in value and of the same relative complication. In figures 10 and 11 he has outlined conservative estimates of his time and the time spent of his client and expert witnesses for significant line items in the dispute resolution process. He notes that a 20 day trial is equivalent to a 25 day arbitration because a trial proceeds continuously once begun. Arbitration because of availability of arbitrator and accommodation to parties, is often scheduled over a period of time. The breaks in continuity tend to cause repetition in testimony. Also, as previously discussed, due to the lack of rules of evidence, irrelevant testimony is often allowed, delaying the proceedings. His estimate shows that the difference in cost of a significant litigation to a significant arbitration is very small at only \$16,200.

Mr Peckar feels that part of the widespread use of arbitration can be attributed to the fact that most attorneys are comfortable with the format. It is after all quasi-judicial in nature. While it has attained widespread use, it is arguable whether arbitration is of great benefit to the construction industry. Direct cost and time comparisons between arbitration and litigation are admittedly difficult. However, industry

**A CASE STUDY - THE COST OF A
SIGNIFICANT TWO PARTY LITIGATION**

<u>SERVICE</u>	<u>ATTORNEY MAN DAYS</u>	<u>EXPERT MAN DAYS</u>	<u>CLIENT MAN DAYS</u>
Case Familiarization and File Review	20	10	20
Expert Research	-	10	-
Preparation of Pleadings	3	-	-
Review and Preparation of Files for Inspection by Adversary	4	-	2
Preparation of Issue Files	7	-	20
Initial Preparation for 18 Days (9 per side) of Deposition	20	3	9
Respond to Opponents' Interrogatories	5	-	25
Preparation of Expert Report	5	20	5
Attendance at Document Inspections	12	-	12
Client Preparation of Copies	-	-	10
Review Adversaries' Answers to Interr.	2	2	5
Discovery Motions	4	-	-
Pre-Trial Court Appearances	3	-	2
Attendance at Depositions	18	18	18
Substantive Motions	8	-	-
Client Meetings with Counsel	10	5	10
Preparation for Trial (incl: Pretrial Briefs, Prep witnesses, etc.)	30	5	15
Trial (20 trial days)	30	5	30
Post-Trial Briefs	10	-	-
Appeals	20	-	-
<u>Collection</u>	<u>5</u>	<u>-</u>	<u>-</u>
Totals	216	78	183
Fee	\$1,200/MD	\$1,000/MD	?
Costs	\$259,200	\$78,000	

Total Costs of Attorneys and Experts - \$337,200

Figure 10

A CASE STUDY - THE COST OF A
SIGNIFICANT TWO PARTY ARBITRATION

<u>SERVICE</u>	<u>ATTORNEY MAN DAYS</u>	<u>EXPERT MAN DAYS</u>	<u>CLIENT MAN DAYS</u>
Case Familiarization and File Review	20	10	20
Expert Research	-	10	-
Preparation of Pleadings	1	-	-
Review Responsive Pleadings	1	-	-
Review and Preparation of Files for Inspection by Adversary	4	-	2
Preparation of Issue Files	7	-	20
Initial Preparation for 10 Days (5 per side) of Deposition	10	3	5
Preparation of Expert Report	5	20	5
Attendance at Document Inspections	12	-	12
Client Preparation of Copies	-	-	10
Pre-Arbitration Conferences	3	-	2
Attendance at Depositions	10	10	10
Client Meetings with Counsel	10	5	10
Initial Preparation for Hearings	25	5	15
Arbitration (25 hearings)	25	5	25
"Re-Tooling" Preparation	17	2	5
Post-Arbitration Briefs	10	-	-
Post-Arbitration Court Applic	10	-	-
<u>Collection</u>	<u>5</u>	<u>-</u>	<u>-</u>
Totals	175	70	141
Fee	\$1,200/MD	\$1,000/MD	?
Costs	\$210,000	\$70,000	
Include:			
AAA fees	\$15,000		
Arbitrator Compensation	\$18,000		
Other Arbitration Expenses	<u>\$ 8,000</u>		
	\$41,000		

Total Costs of Attorneys, Experts and AAA expenses - \$321,000

Figure 11

experience and the facts that are available indicate that arbitration is equally as costly and only slightly faster than litigation. The true benefit, therefore, lies in the ability to select a knowledgeable arbitrator and the subsequent confidentiality. As noted earlier these benefits must be weighed against the lack of discovery and rules of evidence and against the inability to appeal decisions.

It seems, the larger and/or more complex the case, the more significant are the drawbacks of arbitration (such as the Kaiser-Condec dispute). Also, the greater the impact of a poor decision, without the ability to appeal. Many firms may feel that for high stakes disputes the risks of a poor decision may outweigh the benefit of having a technically knowledgeable individual make the decision or the benefit of a "speedy" process. For this reason, sometimes attempts are made to limit the jurisdiction of the arbitrator. This may be done in the contract by placing an upper limit on the value of disputes that will be arbitrated or by limiting monetary awards.

Tom Thomason, senior attorney at Bechtel, notes that Bechtel typically avoids the use of arbitration since it can be unpredictable. He feels that they are better able to predict outcome in court. This fits into carefully crafted insurance and risk management plans. Arbitration, because of its' restrictions on appeals, represents undue risk. It is apparent, then, that arbitration proceedings are best kept as simple as possible and that the cases be limited to highly fact oriented or highly technical disputes. Conversely, if the dispute involves complex legal matters, many parties, and large dollar values the court system is probably preferable.

19. Phone conversation of 7 July, 1989.

A summary of industry experience, special considerations and application of arbitration is shown in figure 12.

Arbitration Summary

Characteristics:

- Selection of knowledgeable arbitrator - more than 30,000 arbitrators listed on American Arbitration Association Construction Panel
- Very flexible - conditions need only be written into contract.
- Limited, if any, prehearing discovery.
- Rules of evidence do not apply.
- Confidential - opportunity for bad publicity or precedent is minimal.
- Binding - decision is not subject to appeal; no explanation of arbitrators decision required
- AAA average time to settle - 6.5 months

Special Considerations:

- Specify which rules will be used in the contract.
- Advantage over conventional trial (judge or jury) in that arbitrators have specialized knowledge (may be less apt to apply strict liability to A/E.).
- May be affected by hearsay, surprise evidence, or poor decision and not be able to appeal.
- Cannot join third party (ie. designer, or sub in owner v. contractor dispute).

Application:

- Can become as complex as court for large cases, also risk exposure to adverse large awards increases with size of case. Legally complex, multiparty, high value suits are not appropriate.
- Best applied to medium to small value, fact oriented, or technical cases.

Mediation

The least formal of the non-binding forms of Alternate Dispute Resolution is mediation. The basic concept of mediation is that a third party acts as a mediator, or go between, to moderate negotiations and facilitate agreement. Negotiation between the parties, whether direct or indirect, is the essence of this process. Although sometimes confused with arbitration, there is a distinct difference. Primarily, arbitration involves a decision by an intervening third party or "neutral"; mediation does not. As noted in Disputes and Negotiations; A Cross-Cultural Perspective ²⁰, "Mediation and arbitration...have conceptually nothing in common. The one (mediation) involves helping people to decide for themselves, the other involves helping people by deciding for them."

As noted previously, the court system, and to some degree arbitration, tend to entrench parties into opposing positions with no view toward resolution other than a court battle. The ensuing legal questions tend to hamper the resolution process by reducing flexibility and further entrenching the opposing positions. Mediation attempts to resolve the dispute by emphasizing areas of agreement, promoting positive interaction, and by moving both parties toward a common ground.

Parties considering mediation should consider that mediation is private, voluntary, informal and non-binding. The process is far less adversarial than litigation or arbitration; typically permitting the business relationship to be preserved. Also, since other options are still available if mediation should fail, entering into a mediation process is essentially without risk.

20. Gulliver, Disputes and Negotiations; A Cross-Cultural Perspective, New York Academic Press, 1979.

Due to the nature of this process (negotiation), mediation frequently results in a compromise between the parties' "bottom lines." The emphasis is on making a business decision and not resolving legal questions. The presentations and negotiations, therefore, are conducted by the businessmen - and not by the lawyers. This preserves the business relationship between the parties and allows the businessmen the opportunity to settle their own disputes.

A great advantage also lies in the fact that unlike arbitration or litigation, the parties retain complete control. Since the process is conducted through mutual agreement, the parties may have the mediator removed, or if satisfactory results do not materialize, either party may end the mediation at any time.

Guidelines for mediation can be obtained from many dispute resolution services. For example Appendix 5 provides the Center for Public Resources (CPR) Mediation Rules. If desired, these or similar rules can be referenced in the contract language along with an agreement to mediate as a precondition to arbitration or court proceedings. For Example:

All claims, disputes and other matters in question between the parties to this agreement, arising out of or relating to this Agreement or the breach thereof shall be initially submitted to mediation in accordance with the Construction Industry Mediation Rules of the American Arbitration Association. Provided, that if the mediation process has not resolved the controversy within thirty (30) days of the submission of the matter to mediation, the controversy will be decided by arbitration. (Continue with standard arbitration clause.)²¹

21. Lurie, Paul M., ADR for Design Professionals, ACEC, 1988.

This can help to avoid any confusion once a dispute arises.

Some attorneys reject these clauses as being ambiguous and ineffective since the process itself is non-binding. However, Matthew J. Gallo, senior trial attorney for AMOCO Corp. states, "In reality, they are no more uncertain or ambiguous than conventional litigation, and they're cheaper. Businessmen should insist on including a provision for such techniques in contracts."²²

As noted by Robert A. Rubin a partner in the New York law firm of Postner & Rubin, who specializes in construction disputes:

"There are two schools of thought on such a provision. The first is that no matter how intransigent a party may be, mediation by a skilled mediator will work in a certain number of cases and that it is worth the effort. The second school of thought is that an unwilling party will simply use mediation as a means of further delay and to add to the expense of ultimate dispute resolution.

The agreement can provide that the prevailing party will recover attorney's fees and expenses, both of the mediation and the arbitration. This creates a disincentive to abuse the process."

If not included in the contract language, the mediation process is typically initiated by one party contacting a neutral or a dispute resolution organization. The neutral or organization will contact the opposing party to see if there is interest in mediation.

The mediator is an outside party, usually of some reputation in the industry. As noted before, if the issue involves technical questions or issues peculiar to the construction industry then the experience of a respected industry mediator will save time and provide insight unavailable

22. Phone conversation of 15 June 1989.

in a typical court proceeding. Mediators can be chosen in much the same way as arbitrators. Either party may suggest one or more candidates, or may recommend that the parties choose a mediator from a roster maintained by a dispute resolution organization. Many dispute resolution services, such as the AAA maintain lists of acceptable mediators. Both parties agree to listen to this individual whose principal duty is to provide an atmosphere of reason and impartiality.

The approach used by the mediator is very flexible. He may have each party summarize its case in the presence of the other; use private discussions with each party; or he may only attempt to obtain offers and counter offers. Also, if the mediator is a judge or lawyer he may offer his opinions on points of law. The mediator encourages discussion but is not bound by rules of evidence. Like arbitration, he is free to air views and facts which may not be heard in a court of law. The mediator may also propose possible settlements that parties themselves would accept but not put forward for fear of appearing "soft." The mediator does not make a judgment, and does not argue on behalf of the complainant or the respondent. However, during the course of mediation the parties may ask the mediator to render his best judgment as to the theoretical outcome of the case if litigated. It is important to remember that his recommendation, if he makes one, is not binding. The mediator may exert mild pressure such as, pointing out to the parties the benefits of resolving the dispute here and now rather than through lengthy and costly court proceedings.

In contrast, the arbitrator's role is quasi-judicial in nature. Therefore, an arbitrator is more strictly guided by ethical and judicial norms. For example, the arbitrator must refrain from private meetings

with either party or their attorneys without the consent of the other party, for fear of prejudice. Mediators, on the other hand, are permitted, in fact encouraged to have private meetings with the parties. This is part of the basis of mediation.

The American Arbitration Association has defined the various roles of a mediator as follows:

American Arbitration Association
Roles of a Mediator

Reconciliator	Brings parties together in order to engage in face-to face discussions; opens channels of communication; and defuses hostility.
Facilitator	Keeps discussions going by providing a neutral ground, arranging meetings, offering to chair them, helping to shape the agenda, simplifying procedures, etc.
Resource Expander	Helps to gain access to necessary factual and legal information, having an important bearing on the dispute; cuts through bureaucratic red tape, etc.
Interpreter/Translator	Makes sure that each party understands what the other is saying; and increases perception and empathy between the parties.
Trainer	Instructs the parties how to negotiate more effectively with each other through probing and questioning.
Reality Tester	Gets each party to look at how the other side sees the problem; makes each side think through and justify its facts, demands, positions and views; has the parties assess the costs and benefits of either continuing or resolving the conflict; makes each party consider and deal with the other's arguments; raises doubts on rigid positions; and explores alternatives.

For the purposes of discussion, the mediation process can be broken down into four basic phases.

Joint Session Introduction-

The mediator presents his qualifications and mediation experience,

provides assurances of impartiality, and reviews the reasons for the parties to participate in the settlement conference and emphasizes the continued decision making responsibilities of the parties. The mediator explains the mediation process and how it differs from litigation and arbitration. He proceeds to explain the rules covering each party's opportunity to talk, the order of presentations, decorum, the discussion of unresolved issues, the resort to caucus (private discussions), and the confidentiality of proceedings.

Presentation of Arguments-

Each party describes how it views the dispute. The claimant discusses it's understanding of the issues, the facts surrounding the dispute, what it wants and why. The defending party then responds and makes similar presentations to the mediator. This may be the first time that either side has heard the full viewpoint of the other. In this initial session, the mediator gathers as many facts as possible and clarifies discrepancies. The mediator also evaluates relationships and dynamics between the parties and their counsel. The mediator tries to understand the perceptions of each party, their respective interests and positions on the issues.

Private Meetings-

If joint discussions reach a stage where no further progress is being made, the mediator often meets with each party separately in caucus. During the caucus, the mediator clarifies each party's version of the

facts, priorities, and positions, loosens rigid stances, explores alternative solutions, and seeks possible tradeoffs. The mediator also attempts to confidentially illicit each parties bottom line position, and tries to move the two positions closer together. The mediator strives to have each party think through its demands, its priorities, and its views, and to deal with the other party's arguments. In effect, the mediator increases the perception of each party about its own case as well as about the other side's case. If the mediator can develop the idea that there are alternatives, the parties will articulate these possibilities by moving toward trade-offs and acceptable accommodations.

Final Agreement-

The mediator narrows the differences between the parties and obtains areas of agreement on minor and major issues. He may make suggestions about final settlements, stress the consequences of failure to reach an agreement at this stage, emphasize the progress that has been made, and formalize the offers which have been made to gain an agreement. The mediator often has the parties negotiate the final terms of a settlement in a joint session, verifies the specifics of an agreement and makes sure the terms are comprehensive, specific, and clear.

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John W. Cooley in *Arbitration vs. Mediation*, emphasizes that the mediator should leave the final agreement to the parties and should not be involved. Industry experience, however, seems to indicate otherwise according to B. C. Hart, a partner in Hart, Bruner & O'Brien, a Minneapolis based law firm specializing in construction disputes. Mr.

23. John W. Cooley, "Arbitration vs. Mediation," Chicago Bar Record, January 1985.

Hart recounts experiences by himself and colleagues in which a conceptual agreement was reached at mediation and later reneged by one of the parties. Without a formal agreement it is easy to renege post-mediation since it is by definition, non-binding. He recommends, "If you think you've got an agreement, get it down in writing, now!"

Typically this entire process is confidential. The parties and the mediator may not disclose information divulged during the process, including settlement terms, to third parties. Also, the mediator will be disqualified as a witness, consultant or expert in any pending or future action relating to the subject matter of the mediation, including those between persons not parties to the mediation.

The experience with mediation in the construction industry so far has as been very favorable.

Jim Savage a Newton Massachusetts attorney specializing in construction disputes recounts his experience with mediation. "... consider nine construction cases that I mediated between November 1987 and June 1988. Of these, six were successfully resolved, two were partially resolved, and one is awaiting a determination on a statute of limitations issue. Some had factual situations going back nearly a decade and had been on the trial list for years. Each case took a total of three to five hours for a determination. The mediation sessions had three phases: (1) fact finding, (2) the proposal for settlement, and (3) final negotiation, or "selling the settlement." Phase two inevitably fell to the mediator. Since these were construction claims involving construction people, what was called for in all nine cases was a business decision based on the practical aspects of the controversy rather than a legal one based on a prior ruling in a similar set of circumstances (as in court proceedings).

Previously the cases had been bogged down in legal issues, drawing attention and effort away from the actual problem itself. Unquestionably, the major impetus for the parties to accept the settlement proposal or something close to it was the potential for expending more time and money in litigation if settlement was not reached. The parties were reminded that minor issues, even those of little or no consequence to the main issue, can be as time-consuming as major ones-particularly in court.

In one case, for example, where the drawings indicated the application of the same material in 26 diverse places, 26 issues arose, such as the appropriateness of the material for the specific type of construction involved - a question for the architect; the quality of the specified material - a question for the manufacturer and the supplier; and whether the material was properly installed - a question for the contractor and/or subcontractors. In such a case, the expenses of litigation could easily exceed the value of the issue.

Also influencing the parties decision to settle were concerns of control and certainty. Agreement during mediation would allow both parties to control the outcome directly - something not even remotely possible in litigation - and therefore to avoid the uncertainty in awaiting the result of a court proceeding.

What worked was a person with experience in the industry, working without cumbersome legal machinery to find a middle ground - a solution arrived at by simply weighing what one side actually received against what the other side agreed to furnish.

Ms. Sandra L. Nelson, vice president of Engineers' Risk Services, provides the following example. A project involving the design and construction of a large warehouse was underway when one of the corners of

the building began to show signs of significant settlement. The owner was looking to the insured who had performed both the site investigation for the owner and the construction observation services for the grading contractor. Rapidly, the parties were polarizing and had retained lawyers; the longer the problem remained unresolved, the greater the loss of revenues. An agreement to mediate was obtained. At the meeting, while there was a question of the adequacy of the fill materials used, there was also a significant question of the adequacy of the drainage system. In two meetings, the claim was settled. The four parties to the dispute-the owner, the geotechnical engineer, the general contractor, and the grading contractor-executed a settlement agreement. Without admitting liability, the building began to show signs of significant settlement. The owner was looking to the insured who had performed both the site investigation for the owner and the construction observation services for the grading contractor. Rapidly, the parties were polarizing and had retained lawyers; the longer the problem remained unresolved, the greater the loss of revenues. An agreement to mediate was obtained. At the meeting, while there was a question of the adequacy of the fill materials used, there was also a significant question of the adequacy of the drainage system. In two meetings, the claim was settled. The four parties to the dispute-the owner, the geotechnical engineer, the general contractor, and the grading contractor-executed a settlement agreement. Without admitting liability, certain services would be provided by each entity and the damages would be "capped" at the total sum of \$100,000, with each party contributing an equal share in the amount of \$25,000 to be deposited in an account which would fund the actual damages. In the event the entire sum was not used, (an event that was extremely likely) the parties would receive an equal

share of the remaining portion.

Objectives attained:

-The loss was controlled. In a short period of time, the parties were able to reach an agreement which was shared; upon further analysis, each party might have had to pay this amount individually without this settlement. The cost-sharing agreement saved the project and cut the loss potential for each by 75%.

-The damages were contained. A cap, or maximum, was established for the total damages which could have reached in excess of \$250,000. The containment of damages saved at least \$150,000 without consideration for the amount which would have been spent for legal expenses without the process.

-The relationships were preserved. Because the parties actively undertook to resolve the problem. The project continued to everyone's satisfaction and secured the prospect for future relationships, projects, and revenues.

-The issues were clarified. Everyone agreed that the main concern was to keep the project going and that there were questions as to who was responsible and to what extent; they concluded that each could conceivably be liable for a portion or all of the damages. They decided that no one would admit liability and that the owner would share equally in the agreement.

-The parties secured an agreement. The secured agreement confirmed the intent of the parties and it was a creative settlement which involved dollars, sense, and services.

The damages, including lawyer's fees and the cost for the mediator (which averaged \$3,000), for each party were assessed at a maximum of \$25,000. While this case would have been settled under any circumstances, there is no question that the damages and expenses would have been far
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more significant without the process.

Some attorneys advise that ADR will not work in complex matters. CH2M Hill's experience shows otherwise. Mr. James Poirot, Chairman of CH2M Hill explains: "We were involved in a piece of litigation that had two plaintiff's and two defendants. The suit was for over \$5 million and had already undergone four intensive years of litigation (initial complaint,

24. ADR for the Construction Industry, Association of Soil and Foundation Engineers, 1985.

many depositions, expert witnesses on both sides, production of documents, etc.) We use a professional mediation service for one day (approximately ten hours), followed by a series of phone calls over the next 7-10 days. We settled the case with both sides agreeing to a number (\$1,500,000) they had previously refused to consider. We have had numerous reports from DPIC of similar experiences with both complex and multiparty cases. (Note: the mediator was our second attempt at ADR. The previous attempt was a "rent-a-judge" concept-unsuccessful because the judge refused to push hard on either side.)"

Perhaps the best example of the potential for cost savings through mediation is demonstrated by figures obtained from the Design Professionals Insurance Company (DPIC), one of the nation's largest insurers of design professionals, specializing in Architect/Engineer and construction underwriting. After experiencing greater and greater legal fees as a percentage of indemnity payments, DPIC began to use formal mediation as a means of reducing settlement costs. Repeated successes with mediated settlements prompted DPIC to track costs as a means of comparing mediation and litigation expenses. The results have made DPIC a strong proponent of Alternate Dispute Resolution. Specifically, DPIC has undertaken to introduce formal mediation into all construction related disputes.

Elliott P. Gleason Senior Vice President and Chief Claims Officer for DPIC notes that professional liability and construction cases are inherently high cost for legal fees due to the complicated material/issues, expert witnesses required, and specific knowledge required. He believes that this causes litigation to be excessively long and involved. Mediation, however, because it involves the actual

participants and a knowledgeable mediator can be undertaken quickly. Thus avoiding the extensive background work necessary to familiarize attorneys, judges/juries and others involved in the legal process with complicated construction cases and specific engineering issues.

Figure 13 shows a summary of actual expenses for 175 litigated cases closed in 1987 in five major regions. All claims shown were of \$100,000 value or less. The ACE (Allocated Claim Expense) includes only settlement fees, ie. court costs and attorney's fees. No indemnity costs are included here. (Cases greater than \$100,000 value require more extensive legal work and, therefore, have proportionally greater ACE costs. Limiting the case value to \$100,000 causes this to be a conservative estimate of the cost of litigated settlements.) The final column, Paid per Claim, is the average expense of litigation for each case. The bottom line figure shows that, on the average, it cost \$24,366 to close each case through the standard legal process.

In contrast, figure 14 shows a summary of actual expenses for mediated cases closed through 1988 in the same regions (1987 dollars). The Cumulative Total column includes all costs associated with the mediation process. The bottom line figure here shows that, on the average, it cost \$2,445 to close each of these cases through mediation.

Figure 15 shows a more detailed summary of actual expenses for cases closed through mediation. The total ACE includes the total cost of settlement. This includes attorney's fees, court costs, etc. prior to entering mediation. The total cost of mediation alone is broken out in the next column, Mediation Costs. The Non-Med Costs shows the Total ACE minus Mediation Costs. This indicates the total legal expenditures prior to entering mediation.

Litigation Costs

<u>Region</u>	<u>Number of Cases</u>	<u>ACE Paid</u>	<u>Paid Per Claim</u>
San Francisco	35	898,615	25,675
Chicago	35	552,591	15,788
New York	35	904,705	25,849
Newport Beach	35	1,112,756	31,793
Atlanta	35	795,362	22,725
Nationwide	175	4,264,029	24,366

Figure 13

Mediation Costs

<u>Region</u>	<u>Number of Cases</u>	<u>Cumulative Total Cost</u>	<u>Average Per Case</u>
San Francisco	86	218,765	2,544
Chicago	21	42,031	2,001
New York	22	62,625	2,847
Newport Beach	64	149,479	2,336
Atlanta	54	130,919	2,424
Nationwide	247	603,819	2,445

Figure 14

Total Cost of Mediated Cases
(Continued on next page.)

<u>Region</u>	<u>Number of Cases</u>	<u>Total ACE Paid</u>	<u>Mediation Costs</u>	<u>Non-Med Costs</u>
San Francisco	86	\$ 4,064,704	\$ 218,765	3,845,939
Chicago	21	506,835	42,031	464,804
New York	22	632,588	62,625	569,963
Newport Beach	64	2,504,250	149,479	2,354,771
Atlanta	54	1,089,774	130,919	958,855
Nationwide	247	8,798,151	603,819	8,194,332

Figure 15

Total Cost of Mediated Cases
(Contd.)

<u>Region</u>	<u>Average ACE</u>	<u>Ave. Non-Med Legal Expense</u>	<u>Average Med. Costs</u>
San Francisco	47,264	44,720	2,445
Chicago	24,135	22,133	2,001
New York	28,754	25,907	2,847
Newport Beach	39,129	36,793	2,366
Atlanta	20,181	17,756	2,424
Nationwide	35,620	33,175	2,445

Figure 15 Contd.

The final three columns (figure 15 continued) show a breakdown of the average settlement costs per case. Average ACE is the average total cost to settle each case. Ave. Non-Med Legal Expense is the total average legal expenditure per case prior to entering mediation. The final column, Average Med. Costs, shows the average cost to settle the claim once entered into mediation. This is a striking comparison in that the mediation costs are approximately one tenth of the other expenditures, and in each of these cases mediation resulted in settlement.

Additionally, claims personnel and attorney's were asked to estimate, based on past experience with similar cases, the amount of savings in a given sample of cases closed through mediation. The results are shown in figure 16. Of 287 cases reviewed, the average estimated savings due to mediation was \$43,893 per case.

A comparison of this estimate with the actual costs shows that DPIC's average per case cost of mediation is \$2,445, while their estimated savings from using mediation is \$43,893 per case.

Another estimate was made of the amount of time saved by using mediation rather than litigation. The results, shown in figure 17, indicate that DPIC estimates that it is able to settle its cases approximately 9 months sooner through mediation than through litigation.

In summary, as of January 1989:

1. DPIC reports an estimated legal expense savings in excess of \$12 million on 287 claims.
2. The estimated savings on a per-claim basis exceeds \$40,000.
3. The time saved by mediation (that is, on the anticipated closure date) is estimated as nine months per claim.
4. The timing of the mediation process (that is, from submission to the provider to the point of resolution) averages from 90 to 120 days.
5. For 247 concluded cases, the average cost of the mediation process itself was \$2,445.

Mediation Cost Savings

<u>Region</u>	<u>Number of Cases</u>	<u>Cumulative Total Savings</u>	<u>Average Savings</u>
San Francisco	103	9,159,923	88,931
Chicago	27	705,348	26,124
New York	22	285,834	12,992
Newport Beach	81	1,646,000	20,321
Atlanta	54	800,133	14,817
Nationwide	287	12,597,238	43,893

Figure 16

Time Savings

<u>Region</u>	<u>Number of Cases</u>	<u>Months Saved</u>	<u>Average</u>
San Francisco	103	1,421	14
Chicago	27	217	8
New York	22	301	14
Newport Beach	81	437	5
Atlanta	54	281	5
Nationwide	287	2,657	9

Figure 17

6. The claims which DPIC proposes for the mediation process are accepted into the process by all parties at the rate of 80 percent.

7. The claims for which the process has been accepted are successfully resolved at the rate of 74 percent.

The apparent value of mediation is great, however, its usage is only beginning to become widespread. The National Construction Industry Arbitration Committee (NCIAC) in conjunction with the AAA notes that from January to September 1988, 42 construction cases were mediated; in 1985 only 12 were mediated. While this shows a definite increase in the use of mediation, it still represents less than 1% of the construction cases handled by AAA. CPR indicates in a recent study that mediation constitutes 17% of all ADR techniques used in American business. These figures seem to indicate that the construction industry is lagging the rest of the business world in mediation usage.

One reason that mediation has not gained popularity more rapidly may be that most firms rely on their attorneys or outside counsel make the dispute resolution decisions for the firm. According to Mr. Peckar many attorneys are unfamiliar and therefore uneasy with anything outside the traditional routs of litigation or arbitration. He admonishes that a responsible attorney must educate himself and his client as to the options available, such as mediation, and their benefits. As we have seen, those attorneys who have become familiar with this process have realized great success. Bechtel has had such success with its attempts at mediation that it is drafting language for its contracts to require mediation as a prelude to any formal dispute resolution process. Mr. Tom Thomason,

senior attorney for Bechtel comments, "Mediation is the best thing since sliced bread."

One stumbling block in mediation is that both parties must really be interested in settlement. As noted previously, it is easy to renege on the agreement since it is by definition, non-binding. Paul Lurie notes that, "mediation can be unsuccessful when the parties do not have confidence that their opponent and the mediator fully understand the facts supporting their position. Mediation often fails when a party feels strongly about his chance of success in a binding proceeding."

However, even if no final agreement is reached in mediation, many of the original issues will often be dispensed. Further litigation or arbitration can then address specific unresolved issues more efficiently. At the very least each side is forced (if included in the contract) to sit and listen to the others side of the controversy before costly litigation is begun.

One additional consideration is that in general the parties will be looking out for their interests, and since mediation is completely voluntary (nonjudicial in nature), there is no provision for protecting or influencing those not directly involved in negotiations.

A summary of industry experience and application of mediation is shown in figure 18.

Mediation Summary

Characteristics:

- Nonbinding - mediator advises/recommends, acts as go between, but has no authority to render a binding decision.
- Mediator can be selected for specialized subject expertise.
- No discovery or rules of evidence (since the process is nonbinding this is not as critical as in arbitration).
- Can be confidential

Special Considerations:

- Since process is nonbinding parties retain complete control of settlement.
- Has no "teeth" since it is nonbinding, parties typically share costs of mediator.
- No mechanism for protecting or influencing those not directly involved in the negotiation.
- Costs savings: Attorney fees, witnesses expense, expert testimony, and indirect time savings of company personnel.
- Preserves business relationships.
- The parties negotiating teams should contain senior executives who have the authority to settle and who may be able to develop a constructive business solution. Also, they should not have been directly involved in the dispute as this tends to slant their perspective from the start, since they may feel that they must defend past actions.
- Any final agreement should be formalized in writing, immediately.

Application:

- Both parties must be willing to resolve dispute and have similar interest in speedy resolution. Most effective where disputants are stubborn but basically sensible; and conflict resolution is time-critical.
- Dispute should not hinge on specific legal question.
- One party may perceive that it is not in their best interest to settle, or that they have such a strong position that they do not need to negotiate. Mediation is inappropriate in this case.
- Technical issues are possible if the mediator has experience, but parties must also have a firm grasp of issues to feel comfortable settling. This can be difficult in complex, highly fact intensive cases.

Mini-Trial

The mini-trial gained notoriety in 1977 when it was used to settle a multi-million dollar dispute between TRW and Telecredit, the first high stakes corporate mini-trial. It has since seen found proponents in a growing number of large engineering and construction firms, including the Army Corps of Engineers, Bechtel, Morrison-Knudsen, and Amoco.

The concept of the mini-trial is that by presenting the facts of both sides of the case to top executives from both sides (principals) and educating them on the strengths and weaknesses of the case, they will ultimately resolve the matter. This method provides them, probably for the first time, with the necessary information to make a complete assessment of the risks and costs of going to trial. In the mini-trial lawyers make the abbreviated presentations which are usually also heard by a neutral advisor, usually a retired judge or an authority on the technical issues in the case.

Thus, a mini-trial is not a trial at all but a structured nonbinding settlement procedure which effectively incorporates many of the adversarial aspects of arbitration and the negotiation aspects of mediation. The main difference, however, is that the mini-trial focuses on allowing executive level management to resolve the dispute. This concept strives to reduce the dispute to a business decision rather than a complex legal question.

The characteristics of a typical mini-trial are:

- Normally there has been a procedure filed in court. However, the court proceeding is stayed, pending the outcome of the mini-trial.

- The procedure is voluntary. Either party may withdraw at any time without prejudicing its litigation position.
- Principals of each side with full settlement authority, attend the proceedings. (The parties not the lawyers must be actively involved in the negotiation phase.)
- Parties designate a neutral advisor, usually a person of eminence or one highly knowledgeable in the subject matter of the dispute.
- Attorneys are involved. They prepare the presentations and present the material most favorable to their client.
- Discovery is allowed prior to mini-trial, but usually abbreviated. Limited discovery must be allowed to develop relevant facts. However, extensive discovery should be avoided for the sake of efficiency.
- Each side puts on its best case for a period of not more than one day. No rules of evidence are observed. No objections to evidence are permitted. No cross-examination is allowed, although the neutral advisor may ask questions.
- At the end of the trial the parties negotiate. If they are unable to reach settlement, the neutral gives his opinion of the eventual outcome, and the parties are sent back to bargaining.
- Confidentiality is maintained. If the case cannot be settled, the neutral advisor's recommendation is not disclosed in subsequent litigation or arbitration. One obvious exception, is that otherwise discoverable evidence will not be rendered inadmissible merely because it was also presented at the mini-trial.
- Sanctions may be provided against the losing party if the ultimate result of arbitration or litigation is close to the neutral advisor's recommendations.

The phases of a typical mini-trial as used in the construction industry would proceed as follows:

Agreement-

The mini-trial is usually initiated by one of the parties after the dispute has arisen. While an agreement could be placed in the contract similar to an arbitration clause, this has not been done in practice. Once both parties agree to a mini-trial they must formulate an agreement specifying the procedures to be followed.

According to James F. Henry, president of the Center for Public Resources, the typical mini-trial agreement should cover the following²⁵ issues, as well as any others that are unique to the parties involved:

- impact on any pending litigation
- issues to be discussed at the mini-trial
- discovery required
- identity and roles of mini-trial participants, particularly the business executives with settlement authority
- selection and role of the neutral advisor
- date, time and place of the mini-trial
- schedule for case presentation and post-mini-trial negotiations
- identification of documents (including brief-like statements) to be exchanged in advance of and submitted at the mini-trial

25. Henry, James F., "ADR and Construction Disputes: The MiniTrial," ASCE Journal of Constructed Facilities, Vol. 2, No. 1, Feb, 1988

- confidentiality and inadmissability of mini-trial statements,
submissions and outcomes
- apportionment of mini-trial costs

Two of these considerations bear particular note. One is the neutral advisor. While the use of a neutral is not absolutely necessary, Mr. Henry cautions that it is highly advisable. Typically a respected attorney or former judge, the neutral can help design the mini-trial procedure, moderate the proceedings, and ask probing or clarifying questions during the case presentations. The neutrals most important function may be to provide an advisory opinion on the strengths and weaknesses of each side's case and a prediction of the likely outcome of the dispute at trial.

The second is the participants themselves. Frank Carr , chief trial attorney of the U.S. Army Corps of Engineers, notes, "These management officials should be from an organizational level higher than where the dispute arose. The reason for requiring the participation of this level of management is that the principals' deliberations and judgments should not be clouded by any previous involvement in the dispute.

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Pretrial-

This stage involves preparation for the actual mini-trial. It involves discovery and exchange of position papers and exhibits between the parties to clarify claims. This is the most lengthy phase of the

26. Edelman, Lester, "The Mini-Trial: An Alternative Dispute Resolution Procedure," The Arbitration Journal, March 1987, Vol. 42, No. 1., also phone conversation Frank Carr of 12 May 1989..

mini-trial. However, by mutual agreement this phase should be limited in duration. These limitations should allow both sides to develop the facts of the case without becoming embroiled in extensive interrogatories

Says Frank Carr:

The mini-trial must be short duration. Otherwise, it can degenerate into an alternative as costly and lengthy as litigation itself. In most cases, the process should be completed within one to three months, including the time for discovery and hearing. Expressly limiting the scope of discovery and the informal hearing is essential in order to complete the process in a short period of time.

He also advises that the parties complete this phase at least 2 weeks prior to the hearing date, in order to allow the representatives (and the neutral) time to review the material, and that the claimant be required to submit an analysis of the requested damages, since the parties will discuss both entitlement and damages.

The time required for the executive level representative is obviously valuable and, therefore, should be kept to a minimum. Also an over prepared principal may have difficulty in taking a fresh view of the problem. However, the principal must have enough knowledge of the case so that he is not at a disadvantage. The Army Corps provides a short briefing for its' principal including copies of position papers and other documents prior to the mini-trial.

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27. U.S. Army Corps of Engineers Alternative Dispute Resolution Series, Pamphlet 1, The Mini-Trial. IWR Pamphlet-89-ADR-P-1.

Trial-

In this stage, both sides present their respective positions to the principals. Each side is given a specific amount of time within which to make its' presentation. How that time is utilized is solely at the discretion of the parties.

According to Mr. Henry:

By limiting the scope of both preparation and presentation of a case, the mini-trial procedure forces each party to concentrate on formulating its "best case." Each case is presented before the neutral advisor and corporate executives of both who, unlike a judge or jury, are already sophisticated about the business that gave rise to the dispute. Without the litigation system's restrictions on permissible issues, evidence, and type of relief available, the parties, uniquely aware of their business operations and objectives, are free to create a settlement agreement that works for them. The result: a business-oriented resolution in which both parties may be winners.

Settlement-

Ideally, following the hearings, the parties will negotiate a settlement. However, this is not always the case. As Mr. Henry noted, the parties may request that the neutral advisor render an opinion. This opinion is non-binding and would be used by the parties in further negotiations. The purpose of the neutral's opinion is to provide a basis from which the parties can work toward settlement.

Each parties' staff personnel are often entrenched in their positions and should not be included in the settlement discussions between the principals.

The following illustration of this problem was provided by Matthew J. Gallo, senior attorney for Amoco (Standard Oil of Indiana):

Amoco Oil Company had a dispute with a contractor at our Whiting, Indiana refinery. The contract called for replacement of a number of steam and product pipelines. It was important that the work be handled around other refinery activities so as not to interfere with normal refinery operations.

Due to a number of factors such as weather, the performance of other contractors, and misunderstandings as to the sequence of work, the general contractor fell behind in his work. He and his subcontractor incurred alleged delay loses both in the utilization of equipment and manpower. A claim in excess of \$750,000 was made against Amoco.

When the project engineers on both sides were unable to resolve the issue as to "extras", it appeared that litigation would be the only recourse. However, in the course of discussion, the lawyers proposed a settlement conference where by each side would be given the opportunity of presenting its best case at separate meetings to the management of the other party.

Lawyers as such were not to be in attendance, and clarification questions could be asked. Unfortunately, the attorney on the other side had a dual position and insisted on being in attendance. This intrusion almost proved to be fatal to the peaceful settlement of the problem.

The general contractor hired a nationally known accounting firm to make its presentation to Amoco's Engineering Department with graphs,

contract documents, and statistical analysis of the job. We were given a book about five inches thick setting forth the entire theory of their claim and a complete breakdown of damages.

Several weeks later, Amoco made its rebuttal presentation which was prepared by a consulting engineering firm engaged by Amoco, which analyzed the claim in detail and prepared a critical path flow chart of the work's progression and the effects of the alleged interference. A settlement proposal was also prepared.

Although Amoco's initial settlement offer was rejected, the real problem came from the attitude of the lawyer for the other side. It was evident from the comments I later received that he was looking at the problem from a litigation point of view, rather than as a business problem to be solved. Quite frankly, I also believe he took advantage of the fact that no other lawyers were present to counter his comments.

The problem was quickly resolved by our advising the vice-president of the general contractor that we were prepared to negotiate a final settlement provided it was negotiated by top management only. No attorneys or consultants were to be present. The businessmen met as planned, and in one afternoon, the dispute was settled for a sum considerably less than the initial demand, but more than our initial offer. The settlement conference proved valuable, as it gave each side a chance to clearly understand the position of the other party and evaluate the facts. We feel we saved a great deal in time, consulting fees, and attorney expense.

Another advantage of mini-trial is its flexibility, not just in procedure but in problem solving. Bringing executive level decision

28. Gallo, Matthew J., "Alternative Dispute Resolution," Les Nouvelles, June 1985.

makers together to solve a business problem, takes advantage of their problem solving skills to devise win-win solutions opening a wide range of solutions which are not available in court.

Also, since this is a voluntary and, therefore, usually cooperative environment, as opposed to the adversarial environment of a court or arbitration, the parties work together to devise solutions, thus preserving business relationships that would otherwise be destroyed.

These attributes are demonstrated by a dispute over Control Data Corp.'s corporate headquarters. The new corporate headquarters in Minneapolis was built with a glass curtain wall surrounding the 14 story building. The facade leaked profusely. Control Data began conventional attempts to get numerous parties to repair the flaw. These included two large contractors, a construction company, the glass manufacturer, a number of subcontractors that were involved in this large project, and the architectural firm that designed the building. No help was received. So, Control Data filed suit against all parties involved. It sought several million dollars in damages and corrective action. At an early stage Control Data suggested a mini-trial and the opposition responded favorably. To keep matters simple Control Data, the architect and the builders agreed to attempt to resolve the dispute among themselves and not involve the subcontractors at this point.

Each of the three groups would appoint a senior manager who would have full power to settle the case. Each side would have about 75 minutes to present its case and to question the others. The panel of three senior executives would have full opportunity to participate in the questioning. When the presentations were complete, the panel would withdraw to negotiate in private. Neutral outside engineers, architects, and a lawyer

would be selected to sit with the panel as experts. The mini-trial lasted about five hours. Control Data outlined its position through its litigation counsel and through a vice-president for real estate and construction. The architect and builder were each represented on the panel by the president of the firms, and the cases were presented by senior line managers. The meeting lasted about an hour and a half, at which point the three agreed on a settlement. It involved the payment of several million dollars to Control Data for damages - plus an arrangement whereby the contractor and architect would replace the outside of the building piece by piece with a new technology at their expense over a period of three years. This resolution was viewed by all as fair and practical. This kind of flexible solution would have been difficult to achieve in court.

The contractor and architect took three months to secure agreements from the subcontractors to contribute to the damage pot and to help repair the structural flaws. "Again, this would have been impossible in a traditional court trial," since the nationally prominent architectural firm and the contractors had "leverage that would have been wasted in a trial."

Said, Control Data Corp.'s vice-president of Corporate Services and GC Lawrence Perlman, who represented Control Data at the mini-trial, "We will use these contractors and these architects again. I can guarantee you as the person who makes those decisions that if we had gone to court with them further business relationships would have been very difficult to maintain."

Proponents of the mini-trial view speed and efficiency as its'

29. "Control Data Mini-Trial Settles Multi-Million Dollar Construction Dispute," Alternatives Vol. 1, No. 4, April, 1983.

greatest advantage. Henry estimates the average costs at one-tenth those of litigation and notes, "Mini-trials have resolved in months, cases that would have taken years in litigation." The following examples are typical of proponents experiences:

In our first attempt at a mini-trial, we successfully resolved a contract claim that was pending before the Armed Services Board of Contract Appeals. The mini-trial involved an acceleration claim in the amount of \$630,570 by Industrial Contractors, Incorporated. The principals resolved the claim in less than three days, and the dispute was settled for \$380,000.

The Army Corps of Engineers used mini-trials twice in the first two months of 1987. The first, involving a contractor's claim for \$800,000 for delays caused by differing site conditions, was settled for \$288,000 two weeks after a two-day mini-trial. The second case, also generated by differing site conditions (about \$515,000 worth), was settled for \$155,000³⁰ the day after the mini-trial.

According to the Ohio State Journal on Dispute Resolution:

The mini-trial used to resolve Control Data's complex multi-party construction suit lasted five hours, and the disputants reached a settlement an hour and a half later. Likewise, Shell and Allied Corporation settled ten years of ongoing litigation almost immediately after their mini-trial. And a seven year old lawsuit against the Insurance Company of North America was settled two hours after a mini-trial hearing. Although executives involved in a mini-trial must spend time studying the facts, circumstances, and documents of the case,

30. Note 27 supra.

they expend less time than if the case had gone to trial or was settled
31
after years of discovery.

One problem often cited with nonbinding forms of dispute resolution is, how to provide incentive to settle without resorting to further litigation or arbitration? Costs associated with the mini-trial are usually split. However to ensure incentive to settle Paul M. Lurie, a partner in the law firm of Neal Gerber Eisenberg & Lurie who specializes in construction law, and Robert A. Rubin, a partner in the firm of Rubin & Postner who also specializes in construction law, are both proponents of contract sanctions. That is, provision in the agreement for sanctions in favor of the prevailing party in subsequent proceedings. Mr. Rubin has been very successful with this technique. He believes that this is the most effective portion of the agreement. He cites the following example:

The case involved a particularly bitter construction dispute between a large contractor and a large industrial owner. The C.E.O.s of the respective parties had not been directly involved in the dispute, had never met before, and shared none of the hard feelings of their representatives who had been on the job with one another. Under the terms of the mini-trial agreement, the two gray-haired C.E.Os were to sit on either side of the neutral advisor, an equally gray-haired retired state supreme court justice.

The parties had agreed to arbitration in the contract but had decided to use the mini-trial procedure in an attempt to resolve the dispute, since it was estimated that the case would involve at least 40 arbitration hearings. If the dispute was not resolved after the mini-trial, the parties would proceed to arbitration.

31. Henry, James F., "Alternative Dispute Resolution Meeting the Legal Needs of the 1980s," Ohio State Journal On Dispute Resolution, 1985.

The mini-trial agreement required the neutral advisor to render a written decision within 1 month after the conclusion of the mini-trial and then, if the parties could still not settle the case, each party was to put its last best offer in writing, and the arbitration would proceed. The mini-trial agreement went on to provide that if the award of the arbitrators fell outside a 10% "window" created by the last best offers of the respective parties, the losing party would pay the winning party's costs and legal fees both of the mini-trial and the arbitration (e.g. assume plaintiff's last best offer is \$5 million and defendant's is \$2 million. If the award is \$4.5 million or more, the defendant pays all costs. If the award is \$2.2 million or less, the plaintiff pays all costs. If the award is between \$2.2 and \$4.5 million, each party pays its own costs). This provision was intended to give the mini-trial procedure some teeth, giving each party an added incentive to settle.

These two provisions proved most valuable. The two C.E.O.s developed a working relationship during the mini-trial, but could not agree on a settlement, even after receiving the neutral advisor's decision. The case proceeded to binding arbitration, but the C.E.O.s, neither of whom had the time to attend the arbitration hearings, did continue to talk by telephone. After nearly a month of arbitration, they agreed upon a settlement. We attribute the settlement to the personal relationship which developed between the C.E.O.s during the mini-trial, and the added incentive created by the possible imposition of sanctions.

According to Boston University School of Law Professor Eric D. Green, "Properly applied to the right case, at the right time, by parties who

32. Rubin, Robert A., "Resolving Construction Disputes: Alternative Methods," Construction Management Association of America, October 1, 1986., and phone conversation of 12 June 1989.

genuinely want to resolve their dispute, the mini-trial can produce spectacular results. Experience to date indicates that best results are obtained in mini-trials of cases involving complex questions of mixed law and fact," that is, where the disagreement centers on how existing law and precedents apply to the facts of a particular case, just the kind of cases in which litigation is often intractable and costly.

Professor Green was speaking of a broad spectrum of commercial dispute resolution, however, this seems to hold true for the construction industry. In general, mini-trials should not be used for disputes whose main issue is an interpretation of the law such as statute of limitations, or that will set precedent such as the interpretation of a new contract clause. Cases hinging entirely on the law or on clear legal precedent are usually a win or lose prospect making it very difficult for the parties to find any common ground and reach any sort of "business" compromise. The Army Corps, in its Draft Circular Guidelines for the use of mini-trials, states unequivocally that "appeals involving clear legal precedent or significant precedential value are not appropriate" for mini-trials.

Since the mini-trial involves the executive level manager directly for the entire course of the trial phase, his time must be balanced against the savings of the mini-trial. Also, the mini-trial does involve some of the expense of discovery normally associated with court proceedings. Obviously, smaller value disputes will not be worth the time of preparation or the time of executive level managers. Therefore, mini-trials will provide the greatest benefit in large complex cases in which disputed facts are the primary issue. The United States Claims Court states that mini-trials are most effective for disputes of

approximately \$100,000 or greater. This is also effectively the lower limit for the Army Corps as well. Although the Engineering Board of contract Appeals (ASBCA) recommends that candidates for mini-trial be in excess of \$50,000, the smallest claim brought to mini-trial by the Army Corps has been \$72,000.³⁴

Since mini-trial is voluntary and nonbinding both parties must genuinely desire early resolution of the dispute in order to reach a satisfactory result. The only "teeth" this procedure has is the sanctions clause described earlier (if used.)

Opponents of the mini-trial suggest that this aspect of the procedure makes settlement unlikely, and that in the event settlement is not reached, the mini-trial is a waste of time. Experience suggests otherwise. Frank Carr states:

Our experience with the mini-trial has shown that the parties reap the benefits of the mini-trial if the dispute is resolved. However, we believe that the parties will benefit from the mini-trial process even if the dispute is not resolved. At the very least, the mini-trial process will force the parties to clearly formulate the issues early in the process and to marshal all the relevant evidence. In addition, the process will provide the attorneys with an opportunity to prepare their cases better for presentation to a board of contract appeals.

The mini-trial provides both parties with the opportunity to resolve their dispute short of incurring the costs, delays, and disruptions that would otherwise result from litigation. At its worst, the mini-trial

33. United States Claims Court, General Order 13, April 15, 1987.

34. Proposed Guidelines for For Alternative Dispute Resolution, U.S. Army Corps of Engineers, Sept 1984. unpublished

forces the parties to assess their respective positions early in the litigation process. In sum, the perceived risks in dispute resolution processes like the mini-trial stem more from a lack of familiarity than from reality.

In spite of the observed results, mini-trials are a fairly infrequent occurrence in the construction industry. Reba Page, chief counsel for the Army Corps' Ohio River District has handled Army Corps mini-trials. She notes that there have been only 15 mini-trials throughout the Corps of Engineers since first used in 1982.

Perhaps one reason why it has not seen more wide spread use is best summed up by the Ohio State Journal on Dispute Resolution:

Some attorneys hesitate to suggest this alternative to opposing counsel for fear that it will be considered a sign of weakness. Attorneys may also feel that a mini-trial minimizes their role or threatens their profession. Other attorneys resist using a mini-trial for fear that their strategies might be disclosed and later used against them if the case proceeds to trial. Two considerations should temper that concern. A mini-trial will often occur after preliminary discovery has taken place. Therefore, the attorneys have a fairly clear idea of the arguments that the opposition will make, and few surprises should occur. In addition, the parties can agree to a confidentiality clause.

However, as we have seen many construction lawyers who have become familiar with the mini-trial process now prefer it to other forms of ADR. Rubin is one. He cites an example in which there were \$50 million worth of disputes on a \$200 million project, involving seven different parties and nine lawsuits. After the mini-trial, all of the cases were settled but one, which involved only a three-month trial (also faster because of

the mini-trial.) "We did in one-week's time what would have taken a year to do" in a normal court case, he says.

Mr. Gallo reports that Amoco has been so successful with the mini-trial that they are experimenting with contract clauses requiring mini-trial prior to litigation.

A summary of construction industry lessons and recommended application of the mini-trial is outlined in figure 19.

Mini-Trial Summary

Characteristics:

- Business oriented resolution.
- Principals (top executives) from both parties with settlement authority (with a neutral advisor) are presented facts from both sides.
- Neutral advisor provides insight as to the likely litigated outcome.
- Non-binding - both parties must genuinely want to settle.
- Flexible - parties can tailor the process to the needs of their dispute.
- Limited discovery - quick and cost effective when compared to complex litigation; used by many large U.S. firms who claim costs at one tenth those of litigation.
- Can be confidential - no adverse publicity or precedent

Special Considerations:

- Representatives must be knowledgeable of dispute but not overly prepared. They must not have had prior participation in the case.
- Voluntary, so parties retain complete control of their settlement and preserve business relationships.
- Do not include staff personnel in final negotiations.

Application:

- Fact intensive disputes.
- Disputes not completely dependent on interpretation of the law.
- Large disputes, to offset time of principal and cost of preparation.

Miscellaneous Alternate Dispute Resolution Methods

There are many variations of dispute resolution methods available under various names. Most are simply minor variations on the primary methods previously discussed (arbitration, mediation, mini-trial) and are rarely seen. Since they have only minor differences between the primary methods they usually have little difference in consideration or application and have little additional advantage in construction disputes. Since some are frequently spoken of, it is helpful to have an awareness of their concepts. Some examples follow.

Mediation/Arbitration

Med/Arb was developed by ASFE in the late 70s. Its concept is that the person who mediates the dispute would also arbitrate any issues not resolved through mediation. In typical application, the med/arb neutral is preselected in the contract and initiates mediation soon after a dispute is reported. He proceeds as in a normal mediation all issues are resolved or until he believes that resolution will be impossible. The mediator then becomes an arbitrator and initiates an arbitration proceeding to resolve any outstanding issues.

Opponents of this procedure claim it is inappropriate for one individual to act as the neutral in a negotiation process and then serve as a binding authority in an adversarial process. Robert Peckar notes that one of the reasons mediation works in the first place is that the mediator has no binding power, and parties can deal more openly and honestly with him. There is concern that the parties, knowing the

mediator may convert to an arbitrator in the future, will be less candid in their dealings with him, thus, destroying one of the advantages of the mediator. Further, the mediator having been privy to private information on both sides, may become impaired in his ability to make an impartial decision.

Professor Goldberg of Northwestern University School of Law, has performed the roles of both mediator and arbitrator. He believes that an arbitrator who previously mediated the same dispute may be "improperly influenced" by the information gained during mediation, "even if he is an experienced, disciplined decisionmaker."

The Deep Foundations Construction Industry Roundtable has made proposals to remedy this concern. Their proposal is similar to med/arb except that provision is made for a different neutral (also preselected) to conduct the arbitration, if the dispute reaches that point. This individual will not have any access to discussions or materials from the mediation process.

Success has been claimed with both of these methods. However, since the possibility of arbitration exists in both methods, the same complications and drawbacks of arbitration are an obvious risk. One should therefore apply the same considerations and applications to these methods as are applied to arbitration alone.

Court-Annexed Arbitration

So called court-annexed arbitration, mentioned earlier, is really just court ordered non-binding arbitration. This is a concept initiated by some courts in an attempt to reduce their caseloads. The premise being

that if more cases are required to go through arbitration (even non-binding) then a greater percentage of them will be settled, thus reducing caseload. Studies conducted by the Rand Corporation suggest that court-annexed arbitration programs in California have helped reduce caseloads in civil money suits (includes personal injury, property damage and contract disputes) by 60%.³⁵

From the participants standpoint, since it is non-binding (although it is somewhat more adversarial in nature), it has the same application and considerations as mediation.

Private Trial (Rent a Judge)

The private trial is usually initiated in much the same manner as arbitration. The difference is, private trials usually follow judicial procedure and rules of evidence. The neutral is frequently a retired judge. The finding of the judge may be appealed just as a court decision may be appealed. Since this method follows all the rules and procedures of court, its only real advantage is that the parties have control over the scheduling. Proponents feel this results in some time savings. Judge Sydney O. Smith a retired judge who has participated in many forms of ADR including private trials notes that while there may be an advantage in scheduling, private trials are usually more expensive, since court time will probably be the same and the judge and courtroom must be paid for.

A successful example of a private trial is supplied by Matthew Gallo. The dispute centered on a fixed price contract between Amoco and Fenix &

35. What We Know and Don't Know About Court-Administered Arbitration, Deborah R. Hensler, The Institute For Civil Justice, Rand Corporation.

Scisson Inc. The agreement called for the construction of an underground propane storage cavern at the Amoco refinery in Whiting Ind.

Problems arose about a year after the contract for the propane cavern was signed. Fenix & Scisson was using a machine known as a "hoist and skip" to lift materials from the cavern, which was 530 feet underground. But the construction company was dissatisfied at the rate at which the device was working, and alleged that the reason was an inadequate supply of electricity to it. The company further claimed that, under the terms of the contract, Amoco was supposed to provide a flow of electric power sufficient for the hoist and skip.

The contractor also charged that it notified Amoco of the problem, but that the oil company did not investigate for several weeks. Although in August 1984 a power adjustment was made with Amoco's authorization and the project continued as planned, Fenix & Scisson claimed that the problem led to a 14-day delay in their schedule. They charged the delay added to their costs and cut into their profits under the fixed-price contract.

Amoco denied the claims, charging instead that "the cause of the problem lay in the contractor's equipment."

Over the next year, the parties negotiated were unable to resolve the dispute. In August 1985, Fenix & Scisson sued Amoco in federal district court in Tulsa, Okla., alleging a loss of over \$300,000. Amoco denied the claims and asserted several defenses, among them its argument that "Fenix & Scisson failed to provide and utilize proper hoisting equipment and thus materially breached its obligation under the contract of the parties."

Amoco suggested a binding private trial and was accepted. The agreement provided for a binding private trial with no right of appeal. The judge, called the Adjudicator, would decide if Amoco had a contractual

duty to supply electricity to Fenix & Scisson and if the oil company breached the alleged duty. If the Adjudicator found that a breach occurred, and that the breach had caused a loss to Fenix & Scisson, he would then award damages to the contractor. Under the agreement damages could not exceed the \$300,000 claimed in the lawsuit plus prejudgment interest.

The agreement also provided for an expedited discovery process, a an adaptation which resembles arbitration. Requests for admission were not to exceed "20 single requests per party," and each side could depose a maximum of seven witnesses. The selection, powers and compensation of the Adjudicator were also set out in detail in the document, and the parties agreed to split all costs.

The parties outlined a 120-day schedule for completion of the entire case, from discovery through decision. The 85th day of the proceeding was scheduled for exchange of briefs and the trial was set for the 100th day. Each party had one hour for its main case presentation and 30 minutes for rebuttal. No live witnesses were permitted. No transcript was taken, and the formal rules of evidence were suspended.

The final judgment was in favor of the contractor, for reduced damages. The award was paid within ten days of the decision as provided in the agreement.

Says Mr. Gallo, "Both parties were highly pleased with the process in that it resulted in an expedited determination of a complicated situation at minimal cost."

In effect the parties tailored this process into a form much like arbitration. The distinction being primarily that the parties had control

over selection of the Adjudicator, scheduling, and procedural specifics. Obviously the considerations and application are virtually identical to arbitration.

CHAPTER 4

Cases

Tennessee-Tombigbee (Mini-Trial)

The Army Corps of Engineers received the 1985 CPR Legal Program Award for Outstanding Practical Achievement for its innovative approach to resolving the Tennessee-Tombigbee dispute. This case demonstrates the ability of the mini-trial to handle even very large disputes relatively quickly and effectively.

The case arose out of a contract for a joint venture of Morrison-Knudsen Company Inc., Brown & Root Inc., and Martin K. Eby Construction Co. to construct an 11-mile segment of the Tennessee-Tombigbee Waterway in northern Mississippi. The project involved the excavation and removal of about 95 million cubic yards of earth for a fixed price of \$270 million.

The Morrison-Knudsen joint venture claimed that during construction it encountered "differing site conditions" in the soil formation of the Waterway. Morrison-Knudsen claimed that the bid information furnished by the Corps described soil that would drain well with normal trenching operations, would contain a nominal amount of drainage-inhibiting clay zones, and would support the contractor's construction equipment. What was encountered was profuse clay/shale zones which inhibited drainage and made it difficult to operate equipment in the excavation. The joint venture filed a \$45 million claim in July, 1983. After lengthy negotiations, the Army Corps' contracting officer issued a final decision in August, 1984, denying the claim in its entirety. The joint venture immediately filed an appeal with the United States Army Corps of Engineers Board of Contract Appeals.

Attorneys for Morrison-Knudsen were aware of the Army Corps' past use of the mini-trial. (It had been used once to settle a \$600,000 claim.) They also believed that a trial before the Board of Contract Appeals would not take place before Spring 1986, and that it would not reach a decision for several months after that. Therefore, they suggested a mini-trial as a means to an early settlement.

The parties formed an agreement providing for a two and one-half day mini-trial beginning June 11, 1985. The principal participants were to be the Division Engineer for the Ohio River Division of the Corps and a Group Vice President of Morrison-Knudsen. The parties selected Professor Ralph C. Nash, Jr. of George Washington University Law School as their neutral advisor. The agreement stipulated that if no agreement could be reached within 15 days after the mini-trial, the case would go to the Board of Contract Appeals for further litigation.

The parties further agreed that two weeks prior to the mini-trial, they would exchange all documentary exhibits, lists of all witnesses, and position papers. They also agreed that there would be no discovery undertaken for the mini-trial, but that they would provide reasonable access to any records compiled during the process of preparing for the mini-trial.

Morrison-Knudsen presented its case on the first day of the trial. The attorneys were allowed to present their case in any manner desired, and it was agreed that there would be no objections during the presentations. At the conclusion of Morrison-Knudsen's case, the Corps was given 30 minutes for cross examination. The principals were then allowed 2 hours to question the presentation.

The Army Corps presented its case on the second day. Again, followed

by 30 minutes of cross-examination, and 2 hours for questioning.

The third and last day was allocated for each party to present its argument for the amount of damages.

The principals were very flexible within the framework of the agreement, allowing witnesses for each side the opportunity to respond to positions taken by the opposing party.

At the conclusion of the mini-trial the principals were unable to reach agreement on certain issues but agreed that the process was productive. Therefore, they agreed to reconvene two weeks later for one day of additional testimony on the unresolved issues.

Following the additional session, on June 28 1985, the principals reached agreement on a settlement figure. The settlement represented a substantial compromise by both sides from their initial positions in the litigation. Both George D Ruttinger, counsel to Morrison-Knudsen and Frank Carr, chief trial attorney for the Army Corp, report that they were very satisfied with the results, and that they believe the mini-trial provided significant savings in time and effort on both sides.

Aside from the size of the dispute, this case is significant in that it demonstrates the flexibility that the mini-trial process can have. The panel ensured that witnesses were able to address issues on both sides of the argument, and when the principals felt that they needed more information, they reconvened the mini-trial for additional testimony.

While the mini-trial resulted essentially in a compromise, which is sometimes used as a complaint against arbitration, it must be remembered that this is a voluntary compromise. This is, by definition, acceptable to both parties, as opposed to an involuntary, binding compromise dictated by a third party, with no opportunity for appeal.

Greenup Dam Construction Dispute (Mini-Trial)

The following case was cited by Ms Reba Page, chief counsel of the Army Corps' Ohio River division, as an example of the adaptability of the mini-trial to handle multiple claims.

The Walker T. Dickerson Co. was hired to modify and repair machinery at the Greenup Lock and Dam on the Ohio River. During the course of the work several disputes arose. Most disputes were resolved through change orders to the contract.

Upon completion of the work nine disputes were still outstanding. Accordingly, Dickerson presented claims to the Corps contracting officer. The officer denied all of them, and Dickerson appealed to the Engineer Board of Contract Appeals.

Dickerson was aware of the Corps' mini-trial program, and proposed a mini-trial to the Corps' Ohio River Division. The Corps considered nine disputes to be more than could be adequately addressed in the limited time allowed for a mini-trial. However, through mutual agreement Dickerson dropped two of the claims and the Corps agreed to a mini-trial procedure for the remaining seven. The remaining claims totaled \$515,000.

In this case since there were no highly technical issues involved the parties chose a neutral with a law background, Prof. Frederick J. Lees of George Washington University Law School. The principals were the commander of the Corps' Ohio River Division, and a Dickerson vice president (and co-owner).

The mini-trial was held in February 1987. During the first two days of the mini-trial, Dickerson and the Corps both presented their respective cases. The principals and the neutral vigorously questioned both sides.

The principals and the neutral, though not required by the agreement to do so, met together prior to the mini-trial convening, during recesses, and at the end of each day. The participants, in retrospect, feel that the rapport established by the principals greatly facilitated the proceedings. On schedule, at the end of the third day the principals agreed to a \$155,000 settlement.

This settlement represented a significant compromise in the position of both parties, and while not as large as the Tennessee-Tombigbee it does show the adaptability of the mini-trial in handling multiple disputes.

Chillum-Adelphi (Arbitration)

The following is an example of a typical successful arbitration. The arbitrators were selected under the auspices of the AAA and were knowledgeable of construction practice. Although the case is not highly technical, there is no doubt that, from the contractor's standpoint, knowledge of the relationship between the owner, architect and contractor was beneficial in deciding the dispute. The dispute hinges on the construction relationship and scheduling rather than a purely legal issue, and provides an excellent example of the courts views toward arbitration.

The Chillum-Adelphi Volunteer Fire Department contracted with Button & Goode, a contractor, for the construction of a new fire house.

The construction contract provided that construction was to begin upon written notice and that the building was to be substantially completed 180 calendar days from the date of notice. The contract also, provided that the time for completion was "of the essence", and failure to complete the work within the time specified would entitle the owner to deduct liquidated damages out of any money which was due to the contractor. Liquidated damages were specified at \$50.00 for each calendar day beyond the agreed 180 days until the building was substantially complete.

The owner's architect specified that the building was to be constructed of pre-cast concrete framing. Button & Goode could not commence work until that material was delivered to the building site. The supplier Nitterhouse Concrete Products, Inc. was delayed in delivery of the pre-cast framing. Button & Goode completed the building beyond the agreed substantial completion date, and claimed that the delay in material delivery caused the delay in completion. Chillum-Adelphi retained

\$21,426.48 in damages from Button & Goode due to the delay in completion.

The contract contained an arbitration clause requiring that all disputes be resolved through arbitration under the AAA. The parties agreed that they would each be given the opportunity to examine and cross-examine all witnesses and introduce exhibits at any time during the hearing.

It was further agreed by the parties that the issues submitted to the arbitrator would be: 1) when was the building substantially complete, 2) should damages be assessed against the contractor, 3) if so, how much?

At the hearing the arbitrators found that the architect had specified Nitterhouse's concrete materials for use in the building. They found that the contractor had made repeated attempts to have some other company substituted for Nitterhouse to supply the pre-cast frames. The architect refused to authorize a change reasoning that Nitterhouse could still make delivery sooner than another company since they were already processing the order. Additionally, a change in suppliers would have required a change in building plans which the architect was not willing to do.

The standard form contract required that the architect extend the completion date for any delays "beyond the contractor's control." The arbitrators found that Chillum-Adelphi was bound by the decision of its architect to use a product which was unavailable on the required date. The arbitrator found that the contractor was not responsible for any delay beyond 180 days from the date that the framing was delivered. He further found that the building was substantially complete 211 days after the framing was delivered. Button & Goode was, therefore, responsible for 31 days of delay. Chillum-Adelphi was granted \$50.00 per day for 31 days, or \$1,550 in liquidated damages. Since Chillum-Adelphi had withheld \$21,426,

the arbitrator awarded Button & Goode \$19,876.

Chillum-Adelphi appealed the decision in court stating that the arbitrator went beyond the issues submitted when he reviewed the architects actions. Further, that the arbitrator did not follow strict legal rules of evidence during the procedure. The court upheld the decision finding that the parties mutually "had agreed that one of the issues to be submitted to arbitration was what damages, if any, should be assessed against the contractor in this case. ... the arbitrator was clearly authorized to determine whether the architect was correct in his determination that the time for completing the contract should not have been extended." Further, "...an arbitrator's honest decision will not be vacated or modified for a mistake going to the merits of the controversy and resulting in an erroneous arbitration award, unless the mistake is so gross as to evidence misconduct or fraud on his part...The fact that arbitrators may fail to follow strict legal rules of procedure and evidence is not a ground for vacating their award."

L'Ambiance Plaza (Mediation)

Perhaps the most spectacular case of mediation, both in the size of the dispute and in the success of the resolution was the recent L'Ambiance Plaza collapse.

The L'Ambiance Plaza was a \$17 million, 13 story apartment building, which was being built using the lift-slab method. It was approximately 50% complete when it suddenly collapsed on 23 April 1987. As a result of the collapse 28 workmen were killed and 16 injured.

A study by the National Bureau of Standards concluded that the probable cause of the collapse was the failure of a component in the lifting assembly. This prompted the Occupational Safety and Health Administration (OSHA) to levy more than \$5M in fines (an OSHA record.) For a complete discussion of the investigation see Appendix 6.

Only 10 claims were filed by January 1988 (prior to completion of the National Bureau of Standards report.) However, 200 additional suits with over 1,000 counterclaims were pending. Through mediation, which was encouraged and mediated by Federal District Court Judge Robert C. Zampano, 92 attorneys representing 100 parties and 40 separate companies signed an agreement in just 19 months.

The settlement is generally attributed to the zealous efforts of Judge Zampano. He identifies concern for the families of the workers' as his primary motivation. Through the course of the hearings he was able to balance the claims of all involved (including commercial) against their participation in the accident. He was able to keep an active dialogue open among all parties and control dissension by reminding all parties of their separate liabilities and that litigation would be counter

productive, taking years, and costing millions of dollars.

To achieve settlement, Judge Zampano says, he "looked for seat-belts." If you were involved in a car accident, he explains, and you weren't wearing a seat-belt, then you are judged to have contributed to the severity of the accident. In the case of L'Ambiance, Judge Zampano points out, he simply looked for everyone who "wasn't wearing a seat-belt."

The settlement included a \$30 million lump sum fund and annuities for claimants and a \$7.6M fund for commercial claims. A complete list of contributors is shown in figure 20. Judge Zampano's efforts even convinced OSHA to reduce its fines to \$430k (shown in figure 21.) 40 commercial claims were resolved at 30% of claim value. Certain defendants contributed to the settlement fund with personal assets, or by assignment of contractual claims, above the full policy limits provided by their insurers. These include the construction manager joint venture, TPMI/Macomber, the main lifting subcontractor, Texstar Construction Corp., the general contractor, Lift-Frame Builders, and owner, Delwood Development international Inc. The City of Bridgeport, whose building inspection program was criticized by one of the investigation reports, is contributing \$1M, plus \$2M in deferred payments.

Not all participants are completely happy with the settlement. Some involved have stated the opinion that without identifying a cause and a liable party they are all viewed as "guilty" just for being associated with the project.

They point out that one drawback to this method of settlement was that the NBS study identified only a probable cause. The actual cause of the collapse remains in dispute (see Appendix 6.) A court trial, driven to

L'Ambiance Settlement Contributions

Delwood Development International owner-developer	Hartford Insurance	\$1 million
TPMI/Macomber, joint venture general contractor	Cigna	\$1 million
George B. H. Macomber president of GC	Personal	\$1 million
TPM Architects Inc. architect	Continental Casualty co.	\$955,000
Lift Frame Builders Inc. floor slab subcontractor	Aetna	\$3.5 million
Texstar Construction Corp. lift slab subcontractor	USF&G	\$3 million
O'Kon & Co. Inc. structural engineer	Structural Engineers Insurance Inc.	\$905,000
Fairfield Testing Laboratory tested welds	General Insurance Co.	\$2 million
Preforce Corp. designed post-tensioning	National Union Fire	\$1 million
City of Bridgeport building inspectors	Self Insured	\$1 million
Dyn-O-Mid Inc. excavation subcontractor	CIGNA	\$1.5 million
Leake & Nelson Co., Inc. steel fabrication and welding	Aetna	\$1 million
B-G Mechanical Contractors, Inc. mechanical and plumbing subcontractor	U.S. Fire Insurance	\$1.5 million
International Lift Slab Inc. jack assembly supplier	USF&G	\$1 million
Torrice Construction Co. concrete subcontractor	Hartford Insurance	\$500,000
Capitol Steel of Hartford Inc. steel subcontractor to Torrice	Aetna	\$400,000

Figure 20
Continued on next page.

D'Addario Industries concrete supplier	Hartford Insurance	\$250,000
O & G Industries concrete supplier	Hartford Insurance	\$250,000
McClinch Crane Inc crane supplier	Continental Insurance	\$250,000
American Welding & Fabrication Inc. shearhead subcontractor	Texas Lloyds Insurance Co.	\$250,000
O. J. Manning Electric Co electrical subcontractor	Hanover	\$300,000
Southwestern Laboratories Inc. inspected shearheads	London Market Insurance Co.	\$200,000
Division Dry Wall Inc. dry wall subcontractor	Covenant Insurance	\$150,000
Gatti Associates Inc. exterior wall subcontractor	Covenant Insurance	\$300,000
Four Star Dry Wall Co. Inc. metal framing contractor for Gatti	Fireman's Fund	\$450,000
VSL Corp. post-tensioning cable supplier	Self Insured	\$250,000
General Galvanizing & Supply Co. manufacturer of bolts and washers	Fireman's Fund	\$150,000
Heynen Engineers geo-tech engineers	Industrial Indemnity Company	\$250,000
Associated Borings Co. Inc. tested soil borings	Fireman's Fund	\$150,000
Springfield industries steel broker to General Galvanizing	Fireman's Fund	\$ 50,000
Krautkramer Branson manufacturer of weld test equipment	Self Insured	\$150,000
Hugh Hedges supervising architect	Uninsured	\$ 7,500
State of Connecticut Housing Finance Authority	Uninsured	\$3 million

Figure 20 Continued
Continued on next page.

Conn. Housing Finance Authority lender for project	Uninsured	\$250,000
Workers Compensation Insurers	Workers compensation payments	\$3,039,858
USF&G	Workers compensation coverage	\$750,000
Jeannie Erectors Inc. reinforcing cable subcontractor	Aetna	\$750,000
Waterbury Foundation Co. Inc. vertical concrete wall subcontractor	Cigna	\$1 million
Westinghouse Elevator Co. subcontractor	Self Insured	\$ 10,000
Johnson & Higgins of Connecticut insurance broker	Self Insured	\$ 12,500
Corroon & Black insurance broker	National Insurance Union Co.	\$1 million
J & J Blasting Corp.	Cigna	\$250,000

Reported by the Hartford Courant 2 December 1899

Figure 20 Continued

OSHA Fines

	Original	Reduced
TPMI/Macomber	\$2,475,000	\$100,000
Texstar Construction Corp.	2,524,000	300,000
Lift Frame Builders	104,000	26,900
Fairfield Testing Laboratories	10,000	3,000
Preforce Corporation	1,000	100
Total	5,114,000	430,000

From L'Ambiance court docket schedule 3(c) (iv)

Figure 21

find fault would have required a more thorough investigation. This might also have been rectified had money been allocated from the settlement funds for a complete investigation. However, Judge Zampano says, he was concerned that this would delay proceedings and, he was afraid, draw settlement funds away from the families of the workers.

One side effect of the incident has been that the Connecticut Governors Committee on Public Safety recommended a complete ban on lift slab construction. Legislation followed which did effectively ban this technique in Connecticut. This occurred even though lift slab construction is viewed as inherently safer by labor unions, and has been in use since the 1950s with only one major accident (no fatalities).

Jim Lapping of AFL-CIO was quoted in ENR as saying, "It is quite possible that, properly done, lift-slab construction might be one of the safest ways to construct a multistory building. In a lift-slab job a larger portion of the work is done at grade, and less on scaffolding, so there is less chance of tools, materials or workers falling from heights."

For his successful efforts in settling this large case, Judge Zampano was singled out by ENR as one who "made marks" in 88 (ENR January 5, 1989).

While, many may argue that ADR is not suitable for disputes involving personal injury, the L'Ambiance Plaza collapse offers an excellent example of just how successful ADR can be. Not only did the parties receive fair compensation, they received it within 18 months. Said one attorney who represented two of the victims families, "This will be a legend in legal history. We could never have accomplished this in litigation."

CHAPTER 5

Conclusion

Those who have become experienced with alternate dispute resolution (ADR) have realized spectacular results in reducing the cost of dispute resolution. As we have seen different forms of ADR are appropriate and less costly than litigation in virtually every type of dispute. Much of the court activity that we are experiencing could clearly be addressed by alternate means.

However, many firms still adhere to the court system as their only means of dispute resolution. This is undoubtedly due to unfamiliarity. Says Marguerite Millhauser, an attorney who specializes in ADR, and a partner in the law firm of Steptoe & Johnson, "Given the training most lawyers have had and the adversarial atmosphere in which lawyers typically work, a not surprising first reaction to ADR often is suspicion." ³⁶

Industry interviews suggest that most individuals or corporate entities become enamored with one type of dispute resolution. If they use ADR and it is successful they tend to use that method repeatedly. Examples are the Army Corps and the mini-trial, or Design Professional Insurance Company and mediation. The case histories suggest that each method works particularly well under distinct circumstances. Bechtel, for example, has used all major forms of ADR. Bechtel attorney, Tom Thomason, indicates that they adapt the method they believe most appropriate to a given dispute.

In making the decision to use ADR, some major factors to consider are:

- May or may not affect the amount of the settlement, but will most likely affect the cost of arriving at the settlement.

36. The Unspoken Resistance to Alternate Dispute Resolution, Negotiation Journal, 1987

- Usually very effective in addressing highly technical or industry specific issues.
- Some forms allow great control of one's own destiny, avoiding the uncertain outcome of litigation (and arbitration.)
- Voluntary ADR is a "no-risk" situation; any party may back out at any time and seek settlement through traditional methods.
- Preserves business relationships.
- Parties may meet face to face rather than through intermediaries.
- Even when unsuccessful, can enhance the effectiveness of litigation by allowing both sides to prepare their cases and air much of the dispute.
- Can be difficult when it is not to the advantage of one of the parties to resolve the matter promptly.
- Proceedings can be made private.
- Cannot join third party to proceedings.

Important lessons learned regarding the agreement are:

- Since ADR techniques will not always be successful, it is important for the parties to sign written agreements to the effect that information disclosed during the process will not be used in subsequent litigation.
- Selection of a third party can be made after the dispute arises. However, the selection is much less controversial if a mechanism for selection has been established in the contracts before a dispute arises.
- For protection from hearsay or surprise evidence, any proceeding in which there is no discovery or rules of evidence should be nonbinding.
- Any agreement reached through non-binding ADR should be formalized in writing as soon as possible.

For comparison, the basic attributes of each method are presented in figure 22.

Industry experience, available statistics, and cases indicate that in virtually all instances any method of ADR is as fast or faster than the court system. Arbitration, however, appears to be roughly equivalent to

Attributes of Primary Dispute Resolution Methods

Court	Arbitration	Mediation	Mini-trial
Involuntary	Voluntary or contractual	Voluntary	Voluntary
Adversarial	Adversarial	Cooperative	Cooperative
Assigned Judge	Arbitrator selected by participants	Neutral selected by participants	Neutral selected by participants
No specialty	Can select based on knowledge	Can select based on knowledge	Can select based on knowledge
Highly structured inflexible	Rules may be set by parties though usually structured	Very flexible	Rules may be set by parties although usually somewhat formal
Decided by third party	Decided by third party	Settled by mutual agreement	Settled by mutual agreement
Binding	Binding with no	Non-binding	Non-binding
Appealable	Not usually appealable	N/A	N/A
Discovery	Limited discovery	No discovery	Limited discovery
Rules of evidence	No rules of evidence	No rules of evidence	Rules of evidence mutually agreed
Public	Confidential	Confidential	Confidential

Figure 22

courts in time and cost. The advantage of arbitration, then, is the ability to choose a knowledgeable arbitrator. This must be weighed against the loss of the right of appeal. Because of this, many firms feel uncomfortable with binding arbitration proceedings of high dollar value disputes.

The courts, it seems, should only be chosen in cases hinging on particular interpretation of the law, or cases that are precedential in nature. For example, the interpretation of a new and unusual type of contract clause.

Mediation and Mini-trial appear to provide the greatest advantages in time and money. Although, since they are voluntary and non-binding they should not be used unless both parties have mutual benefit in a quick resolution and a sincere desire to resolve the dispute. This is not always the case for the party holding the money.

The mini-trial while providing an excellent forum for presenting complex, fact intensive cases, also involves the time and energy of senior corporate executives. It should only be used, therefore, on very large cases. In smaller value cases mediation would be the appropriate course.

Since mediation and mini-trial are both voluntary the problem of dealing with an uncooperative opponent remains. In these cases arbitration is the only alternative since it can be included in the contract and forced if necessary. Also, contractual arbitration can be waived upon mutual agreement, so the options of mediation or mini-trial may still be open.

Therefore, the prudent measure would be to include arbitration clauses in all contracts and provide an upper limit on the claim amount. When a dispute arises attempt mediation in small cases, mini-trial in large

cases. If these fail, proceed to arbitration for any claim under the specified dollar limit.

This type of reasoning could be summed up in a type of decision tree to be incorporated into the firms dispute strategy. Figure 23 is a possible example of the decision flow. Of course the decision process would have to be tailored to the specific firm's corporate strategy, as would the dollar limits for the various methods.

The forms of ADR presented here are by no means the only answer to reducing dispute costs in construction. But the potential for savings and efficiency are obvious. Those in the construction industry must be aware that there are viable alternatives which must be considered. They must know the strengths and weaknesses of these methods and conditions under which they are applicable. This should not be taken to mean that we do not need construction attorneys. On the contrary, they are absolutely necessary given the litigious society in which we operate. However, we must not blindly follow trends or past norms either. We must acquire and apply the knowledge to be able to make informed decisions regarding these matters ourselves.

Possible Decision Tree

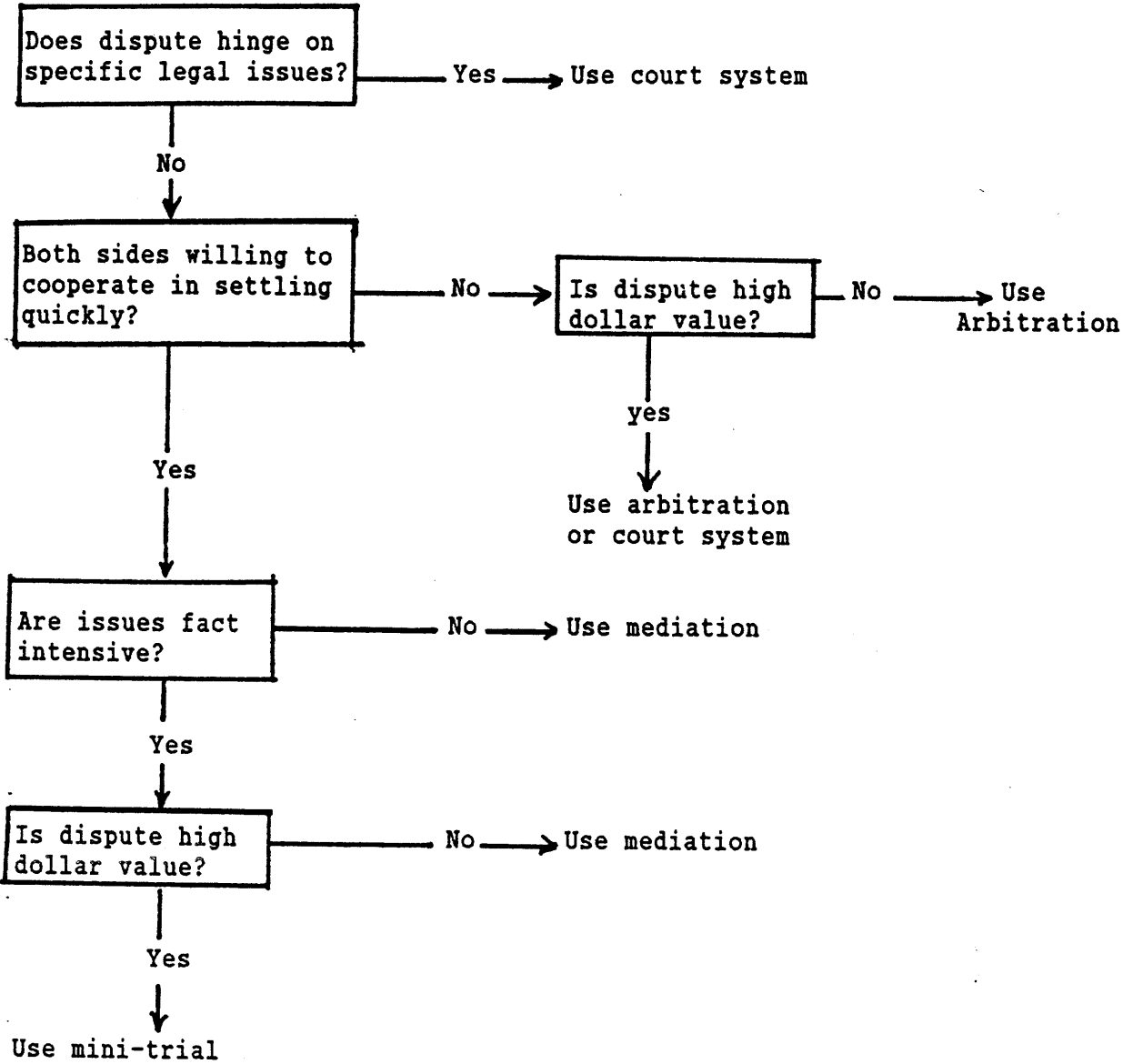


Figure 23

APPENDIX 1

Overview of the Legal System as it Applies to Construction Disputes

Whether through mismanagement, human error, lack of communication, accident, injury or simple disagreement, disputes of some form are inevitable in construction. No dynamic process involving humans and judgment can be made 100% error free and therefore, 100% dispute free.

Potential sources of dispute:

Change Orders

Differing Site Conditions (never completely predictable)

Plans and Specifications (interpretation)

Breach of Contract (failure to fulfill a specified duty)

Implied Contract

Implied Warranty

Negligence (perceived flaw in finished product or accident)

Strict Liability (Asbestos)

Interference (from owner) (from Sub)

We must therefore, ensure that those in the decision making positions in the construction industry have a firm grasp on the most efficient methods for minimizing disputes, and the various methods of resolving the disputes that do arise.

Many disputes are so minor that they can be settled merely through discussion and mutual agreement. These often will be disagreements that do not involve large costs or time or risks. (Anything that is not expressly spelled out in the Contract documents, plans, or specs, should be documented in writing by both sides, however, in case of future disagreement.) If these disputes involve changes to plans or specs or to the contract documents, and involve changes in time, money or risk, they

can often be settled by informal negotiations between the parties and documented with change orders, which can adjust the contractual agreement between the parties through mutual agreement.

Once negotiations have failed, the next step is to bring the dispute to an outside party of avowed impartiality. It must be remembered that until this stage is reached, control of the situation remains with the parties. Once a claim is lodged under a formal method of dispute resolution, control passes out of the hands of those involved. "It is an axiom of the industry that a poor settlement during negotiation is better than a good lawsuit." (Robert A. Rubin, Construction Claims analysis, Presentation, Defense). These formal procedures can become quite complex.

The traditional method of formal dispute resolution is through litigation. A brief discussion of the court system is necessary to understand the litigation process. Most construction disputes are contract disputes and therefor part of what is called civil (as opposed to criminal) court proceedings.

In order to understand the American legal system one must recognize that there are two parallel systems operating side by side: the federal courts and the individual state courts. Each state has its own judicial system. (States may delegate certain judicial powers to the local government, but these courts handle minor areas and misdemeanors, and would not generally handle construction disputes.) Additionally, federal courts operate in each state. Disputes between private parties are generally tried in State or Federal courts having jurisdiction. (Partnerships or corporations are business entities that are treated essentially as private individuals for trial purposes.) The federal courts have jurisdiction to decide disputes which involve the federal

constitution, or federal statutes. Federal courts also have the jurisdiction to hear civil actions between citizens of different states, if the amount in question exceeds \$10,000. This is how most construction disputes end up in federal courts.

Jurisdiction of Federal Courts

Exclusively Federal	Civil actions in which states are parties All cases against the Federal government
Denied Federal	Civil suits involving citizens of different states where the amount at issue is less than \$10,000
Concurrent with States	Civil suits involving citizens of different states where the amount at issue is \$10,000 or more

In some cases, a plaintiff can bring suit in either the state or the federal court and will obviously select the one which he perceives will provide the most favorable hearing. A case may be heard in front of the judge alone, or in certain situations, a jury trial can be requested.

The basic trial court in the federal court system is called the district court. There is at least one federal district court in each state. Decisions by the federal district courts may be appealed to the appropriate circuit court of appeals. There are eleven separate circuit courts of appeal covering different geographical regions of the United States. If a party is dissatisfied with the result of a decision by the circuit court of appeals, he may ask that the United States Supreme Court review his case. In general, the Supreme Court determines for itself which cases it will review. It usually hears only cases that it feels are significant in terms of national interest, or where a conflict between

rules of different federal courts is involved. (This rarely happens in contract cases.) If it decides not to hear the case, then the matter is closed. If it decides to hear the case, then the briefs on oral arguments are presented to the Supreme Court.

Within the federal system, there are a few courts which deal with specialized matters. For example, the Court of Claims decides cases involving claims against the United States Government. For example a dispute between government contractors and the various government agencies which award government contracts.

In most cases where the Owner is an agency of the Federal Government, such as the Department of Defense, disputes are initially heard before a designated contracting officer. If the claimant is not satisfied with the contracting officer's decision the claim may be brought before that agencies board of Contract Appeals, without a jury. For example, a dispute involving a contract with the Army Corps of Engineers would be heard before the regional engineer's board of contract review, with the Army Corps District Engineer presiding over the case. An appeal from this decision would go to the Army Corps of Engineers Board of Contract Appeals or to the Armed Services Board of Contract Appeals (depending on the value of the dispute). This decision may be appealed to United States Court of Claims as noted above. (Note: Government agencies are prohibited against the use of binding arbitration by the Contract Disputes Act of 1978.)

The State judicial systems vary considerably. The basic trial court may be called the district, circuit, or superior court, depending upon the state (Superior in MA). There is usually at least one appeal court above the basic court, usually known as the appellate court. In those states not having an appellate court, the decision of the basic trial court can

be reviewed by the state supreme court.

Where the owner is a state agency or local government, trial will typically go to that government's court system. Appeals from these judgments are made to the appropriate state boards of appeals.

A diagram of the federal court systems is shown in Fig III-a. Most state court systems are structured similarly.

As already indicated, within each of these court systems there are two categories of courts: trial courts (sometimes referred to as lower courts) and appellate courts (also called higher courts or courts of review). Lawsuits always begin in the lower courts.

Many factors govern one's ability to file suit. One of these is the statute of limitations. Filing of the suit must be undertaken within a specified time period. The statute of limitations may start either when an act, such as specific delay, occurs or from the time when the plaintiff became aware that he had suffered a loss. Thus, in a delay claim, the statute of limitations might start running from either the initiation of the delay or from substantial completion, at which time the dimensions of the delay would be known. This can be a complex issue which will not be addressed here.

Relatively speaking it is very inexpensive to file a lawsuit (initially called a complaint), only \$120.00 for U.S. Federal District Courts.

As a simple example, the First National Bank of Akron hired Building and Equipment Corporation of America (BEC) as a consultant for a project to renovate the Bank's main building. BEC developed a plan which the Bank accepted. The Bank then retained BEC as construction manager for the project. The renovation involved a new facade of granite panels supported

at each floor by steel shelf angles, with mortar and caulking sealant filling the seams. Approximately 7 years after completion of the project, the Bank's building manager noticed that the caulking had separated and that several granite panels had loosened from the facing. The Bank notified BEC and hired an engineering firm to investigate the condition of the facade. The engineering firm found that the granite panels were laterally unstable and required extensive repairs. The Bank hired a contractor to complete repairs and subsequently filed suit against BEC in the federal district court of northern Ohio for the cost of repairs.

The following is a typical sequence of events for such a suit.

File Complaint-

A complaint (or petition) is filed in the appropriate court by the plaintiff. In this case U.S. District Court because the parties are from different States thus constituting diversity of citizenship. The complaint has the following information:

Name of Court

Example: UNITED STATES DISTRICT COURT
DISTRICT OF NORTHERN OHIO

Parties Names

FIRST NATIONAL BANK OF AKRON

v.

BUILDING AND EQUIPMENT CORPORATION OF AMERICA

The plaintiff is the party initiating the action; the party "pleading" to the court for some relief, e.g. monetary damages for repairs.

The defendant is the party who is being sued and who has the burden of "defending" the action.

The complaint will contain the allegations by the plaintiff, and explains the nature of the complaint. In this example the Plaintiff alleges that the Defendant is liable for breach of contract in: 1) failing to install the caulking properly; and 2) failing to supervise the project adequately, and that Defendant is liable for negligence in: 1) failing to exercise due care in fulfilling it's professional responsibilities pursuant to the contract.

The complaint is signed by the attorney who is filing the suit, giving his name, address and phone number.

There are two substantially different schools of thought on the preparation and content of the pleading that should be noted here. The first view is to prepare a complete and factual complaint, which is specific. This complaint requires candor on the part of the plaintiff and his counsel. It presents the issues, and is clear to both the court and the opposition. Preparation of this type of complaint requires an investment in time for the development of the case before the pleading.

Another approach to the preparation of a complaint is one in which less preparation time is required. In this complaint, charges, contentions, and statements are made which are claimed to be factual, but which the plaintiff is not necessarily prepared to prove. Further, the complaint pleads a variety of legal approaches sufficient to cover all possibilities. Damages are claimed at the maximum range. The attorney may believe that the only way to get the other side to consider his client's claim seriously is to start a lawsuit and ask for a large amount of money. A lawyer who estimates that his client's claim is worth \$10,000 may ask for \$50,000. This provides room for negotiation, and it may intimidate the other party. It also provides maximum flexibility in the

presentation of the case if settlement is not reached. Unfortunately, this broad-based approach to preparation of a complaint can alienate the parties creating polarization in position. Increased hostility then makes settlement of the dispute even more difficult.

Service-

The Plaintiff also prepares a Summons for the Court to process. This Summons is "served" with a copy of the Complaint to the Defendant. This service may be performed by a Marshall or by a private process server.

Answer-

The Defendant will have a certain time in which to respond to the complaint. This response is called an answer. The answer usually denies or disputes the allegations by the Plaintiff.

The rules governing Civil litigation also provide for the addition of third parties to the dispute. So, in addition to responding to the complaint, the defendant may undertake action against a third party or parties. For instance, a general contractor when served a complaint by a subcontractor may file a cross-complaint against the owner. The owner, in turn, if he believes the complaint to have merit, may undertake a complaint against, for instance, his designer. All three and their sureties may become parties to the same action in court.

Pretrial-

The case is set for trial, with or without a jury. (Either or both parties may ask for a trial by jury.) Depending on the case load of the court, it may be months before the trial will take place. (In California, for example, there are over 225,000 civil suits filed every year in California state courts. It may take as long as four years before a case is tried.) Meanwhile, either party may file certain documents with the court, such as motions, amended pleadings and the like. Also, the parties may take depositions from the parties or witnesses to preserve testimony and to determine trial strategy. The statements made during a deposition are made under oath and recorded by a court reporter. Also, written interrogatories (questions) may be used by either party to accomplish the same purpose as depositions.

This process of assimilating information is called discovery. It is simply an opportunity for the parties to obtain factual information and expert opinions held by the opposing side in advance of the trial. It can, in and of itself, be costly and time consuming, however, it allows the parties to obtain all relevant information, thereby giving insight into the strengths of each side's case.

There may be pretrial conferences before the trial judge. The purpose is to review the issues stated through pleadings, interrogatories, and depositions with a view toward reducing the number of issues through stipulation of situations that are obviously irrefutable. Also, certain portions of the complaint may be settled and are not brought out in the trial.

Trial-

On the day and time and in the courtroom designated for the trial, the parties appear with their attorneys. If this trial will be before a jury, a jury will be selected from a panel of prospective jurors. (Depending on the jurisdiction or type of action, the jury will consist of 6 or 12 persons.) If a trial is before the judge, without a jury, the trial will commence immediately. The participants in a trial are (1) the trial judge, (2) the Plaintiff Attorney and the Plaintiff and the Defense Attorney and the Defendant, (3) the jury, if any, (4) witnesses, (5) the court clerk who marks exhibits and does other secretarial type duties, (6) the bailiff who keeps order and summons witnesses, and (7) the court reporter who records a verbatim transcript of everything said in the court by the participants.

Next the plaintiff's attorney will make opening remarks about the case. In this case he would probably state that BEC did not provide services commensurate with industry standards, and failed to inspect work in the field.

The defendant's attorney will probably state that the facade design was accepted industry practice, that the defendant provided adequate field supervision, and that the claims are barred by the Bank's failure to notify defendants promptly of the defects.

Next, the plaintiff's attorney will bring in witnesses and ask each witness questions about what each saw, heard, etc. there are various types of witnesses, e.g. expert witnesses, character witnesses, observing witnesses, etc. Expert witnesses are witnesses who are experts on a particular subject, e.g. an experienced design engineer who specializes in

facade design, to answer hypothetical questions about acceptable designs. Expert witnesses are paid by the party for whom they are testifying. After each witness testifies, the defendant's attorney may cross examine the witness. Next, the defendant's attorney calls the witnesses for the Defendant and each is examined by the defense attorney and cross examined by the plaintiff's attorney.

During the trial, evidence may be introduced into the trial proceedings, e.g., certified copies of the facade design. The judge rules on whether or not to accept items as evidence. Once accepted, the evidence becomes a numbered exhibit and questions can be asked of witnesses about the exhibits. Attorneys can make objections to anything that transpires in the trial. An attorney may object to an opponent's witness's testimony or to evidence that was introduced. The judge rules on whether or not the objection is valid. Attorneys may, also, make certain motions before the court, for example, to dismiss the case without prejudice (dismiss the suit from the court; however, subsequent action can be filed again and retried.) Or a motion may be made for summary judgment which means no real issue of fact exists between the parties and the judge may decide the case on the law.

After all witnesses have testified, the attorneys rest their cases. Next the attorneys make their closing arguments. The plaintiff's attorney closes first, followed by the defense attorney. Then the plaintiff's attorney has time for a rebuttal.

Following the arguments, if the trial was before a jury, the jury is given a list of instructions and questions to answer. In a civil trial they are asked to answer the questions based on a preponderance (weight) of the evidence. (Note that in a civil action, the plaintiff has the

burden of proving "by a preponderance of the evidence" that the plaintiff is entitled to the relief sought. If the plaintiff fails to produce enough evidence to carry the burden of proof, the verdict will be for the Defendant. (In a criminal case there can be no doubt in the jury's minds. They must unanimously find that the Defendant did an act which was in violation of a criminal law "beyond a reasonable doubt".)

After considering the testimony, exhibits, and facts of the case the jury, or in this example the judge, will present his findings. Based on these findings either the plaintiff or the defendant will win the suit. In this case the judge ruled in favor of the plaintiff, finding that the defendant was liable for breach of contract, (but rejected the Bank's negligence claim).

Since BEC lost, they chose to appeal. The appeal is from the federal district trial court to the federal court of appeals which has jurisdiction over this particular federal district court (in this case the 6th Circuit Court of Appeals). The appeal begins with a petition to the 6th Circuit Court of Appeals. At this point the designation of parties shifts from Plaintiff and Defendant to Appellant and Appellee. The party appealing (losing in the trial court) is the appellant; the party who has to answer the appeal becomes the appellee. The Appellant (BEC) files a brief supporting the reasons why the Appellant believes the trial court was wrong in finding for the defendant.

The substance of the brief would have (1) a Statement of Facts - a basic story of what the case is about, (2) Questions Presented which Appellant wants the court to rule on, (3) Argument - points made with explanations supported by law (cases and statutes) by which Appellant tries to convince the Appellate Court that the trial was wrong on the

legal issues.

As in the trial court, the other party (now the appellee, Bank of Akron) is notified of this appeal. The appellee's attorney will have a certain number of days to file a brief (Appellee's Brief) responding to the points made by BEC-Appellant.

The Court will set a time for each side to present oral arguments to the court. These oral arguments are presented to a judge or a panel of federal appellate judges and are based on the points brought out in the briefs. The judges may ask questions of the attorneys to better understand the case.

However, only those matters contained in the briefs and which transpired at the trial court can be discussed at the appellate level. No new evidence, testimony or exhibits, can be brought into the appellate court.

After the oral arguments, the judges discuss the case argue and vote. If there is a split between the judges the majority opinion carries. The most common decisions that Appellate judges render are: 1. Affirmed - this means the majority of the judges support the lower court's decision; 2. Reversed - this means that the majority of the judges believe the lower court was wrong and therefore reverse the judgment of the trial court. Following the vote of the judges, they may write an opinion. An opinion contains a short statement of facts, a presentation of legal issues which were the basis of the appeal and law 1) supporting their decision on each question and 2) supporting the final decision of the case.

Usually only one opinion is written by one of the judges in the majority. However, all judges have the right to produce a separate opinion if they choose to do so.

The attorney for each side is sent a copy of the decision and the opinion.

Most decisions and opinions of appellate courts are published. In the case of FIRST NATIONAL BANK OF AKRON v. William F. Cann and Building and Equipment Corporation of America the 6th Circuit Court of Appeals affirmed the lower trial court's finding. The full text of lower court and court of appeals opinion of this case may be read respectively in the Federal Supplement, 503 F.Supp. 419, and the Federal Reporter, 669 F.2d 415.

If BEC still feels strongly that it should have won in either the federal district court or the Court of Appeals because of some legal error, the U.S. Supreme Court is the last appellate court to which BEC can appeal the case. In the U.S. Supreme court BEC would be called the Petitioner, that is the party petitioning the court; Bank of Akron would be the Respondent, that is, the party responding to the petition. Basically, the same procedure is followed as in the Court of Appeals, that is, filing of briefs, arguments, decision and opinion. The entire process, from initial filing of the suit through two appeals, can take as long as four or more years.

In this simple example the initial discovery of the faulty facade was made in November 1976. The trial proceedings began in May 1978. Including appeals, the case was finally closed in January 1982, after almost four years of court proceedings.

To gain some perspective on the caseload handled by the court system consider the following: In 1984 24,000 civil cases were filed in Federal Court. In the same year 10,000,000 civil cases were filed throughout the court systems. The average case took 18 months just to come to trial.

Further there are certain aspects of our contractual system which

tend to induce litigation. Consider a construction delay in which the owner and the contractor are in dispute over the reason for delay. Although it is the contractor's common law right to abandon the work in the face of certain compelling situations, most construction contracts include a completion bond - which then puts the contractor's surety in the position of completing the work. A construction firm that plans to stay in business cannot afford to deliberately trigger a default, since this would be a negative influence on his ability to get a bond in the future from this surety, or from any other. (Miller v. City of Broken Arrow, 600 F.2d 450, 455 U.S. 1020) He may be compelled to complete the work under adverse conditions and seek compensation at a latter date through litigation.

Default by the owner during the construction period is not a common occurrence, since the legal arrangements and remobilization of the job with another contractor involve substantial delays. Most owners would prefer to accept the situation until substantial completion, and then seek damages through litigation.

If liquidated damages have been specified in the contract, the owner has a means of withholding funds from the contractor in projects where there is substantial delay. The owner has the option of assessing the liquidated damages and deducting them from either the retained funds, the final requisition or both. If the contractor hopes to regain all or part of the liquidated damages, he is almost forced into litigation.

There is a further complication in this instance. Since interest may not be assessed until the date of award, there is incentive for the owner to resist settlement (payment) as long as possible. As H. Murray Hohns states in Preventing and Solving Construction Contract Disputes, "Defense

and Delay are synonymous."

A dispute such as this can build until one party has little choice but to turn to the court system.

Further complicating any dispute is the very nature of the adversarial court system. Opposing sides are introduced to an unrealistic appraisal of their claims and, the triple-damage mentality surfaces. Here, exorbitant damages are claimed in the hopes of receiving a reduced judgment that is somewhat more realistic. (These inflated claims also tend to further antagonize the opponents.) With these forces acting, the chances for an early, inexpensive settlement fade, with a view toward a late costly one.

A trial is an expensive way to settle a dispute. In addition to attorney's fees, witness fees, court costs, and stenographic expenses, there are less obvious expenses to the litigant. He and any involved employees must spend a good deal of time preparing for the trial and attending the trial. This can create a burdensome drain on financial and personnel resources. For these reasons, as well as others, most lawsuits are settled before the actual trial commences.

According to a survey conducted by Robert A. Rubin in Construction Claims Analysis, Presentation, Defense, More than 80% of construction cases are settled in the pretrial phase, before they reach the courtroom. Surprisingly, however, the parties have often already spent large sums of money and a great deal of time in discovery and preparation of the case prior to settlement. The problem thus becomes deciding not whether to settle but simply when to settle.

APPENDIX 2

Discussion of the Deep Pocket Theory

The deep pocket theory says basically that the party with the greatest ability to pay (or with the greatest insurance) should bear the cost of damages in a dispute, whether they were at fault or not.

The judicial basis for the "deep pocket" rule was established by Justice Traynor of the California Supreme Court. Although this was a products liability suit, the principle is often applied to construction, since a building is, in a sense, a manufactured product. Justice Traynor found:

Even if there is no negligence ... public policy demands that responsibility be fixed wherever it will most effectively reduce the hazards to life and health inherent in defective products that reach the market. It is evident that the manufacturer can anticipate some hazards and guard against the recurrence of others, as the public cannot. Those who suffer injury from defective products are unprepared to meet its consequences. The cost of an injury and the loss of time or health may be an overwhelming misfortune to the person injured, and a needless one, for the risk of injury can be insured by the manufacturer and distributed among the public as a cost of doing business. It is to the public interest to discourage the marketing of products having defects that are a menace to the public. If such products nevertheless find their way into the market it is to the public interest to place the responsibility for whatever injury they may cause upon the manufacturer, who, even if he is not negligent in the manufacture of the product, is responsible for its reaching the market. However intermittently such injuries may occur and however haphazardly they may strike, the risk of their occurrence is a constant risk and a general one. Against such a risk there should be general and constant protection and the manufacturer is best situated to afford such protection.

Escola v. Coca-Cola Bottling Co., 150 P.2d 436

Juries tend to follow this premise and go for the deep pocket. Since 1970 there have been 220 injury verdicts greater than \$1M.

Dr. Paul Slovic of the Decision Research Corporation in a New York Times article (Life's Risks: Balancing Fear Against Reality of Statistics, May 8, 1989) notes that the public has an apparent tolerance for some

risks and an aversion to others, which has no relationship to the probability of being injured. Risks which one can choose to avoid (assumed risk), such as smoking or sky-diving, usually garner little sympathy. However, unassumed risks, which include many routine injuries, frequently generate much sympathy. The Powers v. Al Cohen Construction Co. case, mentioned in chapter 2, in which a woman fell in a pothole and received \$100,000 for injuries, is an excellent example.

The risk coverage demanded for the individual is, therefore, provided by the production chain (in construction: owner, designer, builder.) This is provided in the form of insurance, for which higher premiums must be paid. Premiums are eventually passed back to the consumer in the form of higher costs. Peter W. Huber, an engineer/lawyer and author of "The Legal Revolution and its Consequences" (Basic Books, 1988) calls these higher costs "safety taxes". He estimates, for example, that this safety tax represents 30% of the cost of a step ladder. Mr. Huber says, "Thirty years ago most people who fell off ladders assumed it was their own fault. Today, they would be inclined to question the design of the rungs or assume that manufacturers have an obligation to make ladders accident-free, no matter what the cost."

The above New York Times article also notes that, "a wide range of academic and business experts believe that Americans' perception of increased peril is stifling technology, wasting billions of dollars and, ironically, making it more difficult to contain the most serious risks. ... A 1987 EPA report titled "Unfinished Business" ranked 31 environmental problems. Items high on the scientists' list included indoor radon exposure, global warming from the greenhouse effect and chemical discharges into estuaries and coastal waters. But much of the agency's

money and effort is devoted to managing lower-level risks like toxic waste dumps, underground storage tanks and non-hazardous municipal waste sites. "EPA's priorities," the report says, "appear more closely aligned with public opinion than with our estimated risks."

Mr. Huber notes, that new technologies fare especially badly since the public asserts the legal doctrine of strict liability, effectively prohibiting individuals from bearing personal responsibility for injuries. He argues that, "the law is now systematically biased toward safety, excessively raising product and service costs and inhibiting the introduction of new technology."

In practice, when applied to the design professional, the courts recognize that no design can be 100% error free. If the design exhibits a reasonable standard of care as judged by standard industry practice it can usually escape liability for future damages. Standard industry practice is typically gauged by prevalent industry practice at the time the design was produced.

Construction Industry Arbitration Rules

AMERICAN CONSULTING
ENGINEERS COUNCIL

AMERICAN INSTITUTE OF ARCHITECTS

AMERICAN SOCIETY
OF CIVIL ENGINEERS

AMERICAN SOCIETY
OF INTERIOR DESIGNERS

AMERICAN SOCIETY
OF LANDSCAPE ARCHITECTS

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ASSOCIATION

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CONTRACTORS, INC.

CONSTRUCTION SPECIFICATIONS
INSTITUTE

NATIONAL ASSOCIATION
OF HOME BUILDERS

NATIONAL SOCIETY
OF PROFESSIONAL ENGINEERS

NATIONAL UTILITY
CONTRACTORS ASSOCIATION

As amended and in effect September 1, 1988



American Arbitration Association
40 West 51st Street New York, NY 10020-1203
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Construction Industry Arbitration Rules

1. Agreement of Parties

The parties shall be deemed to have made these rules a part of their arbitration agreement whenever they have provided for arbitration by the American Arbitration Association (hereinafter AAA) or under its Construction Industry Arbitration Rules. These rules and any amendment of them shall apply in the form obtaining at the time the demand for arbitration or submission agreement is received by the AAA. The parties, by written agreement, may vary the procedures set forth in these rules.

2. Name of Tribunal

Any tribunal constituted by the parties for the settlement of their dispute under these rules shall be called the Construction Industry Arbitration Tribunal.

3. Administrator and Delegation of Duties

When parties agree to arbitrate under these rules, or when they provide for arbitration by the AAA and an arbitration is initiated under these rules, they thereby authorize the AAA to administer the arbitration. The authority and duties of the AAA are prescribed in the agreement of the parties and in these rules, and may be carried out through such of the AAA's representatives as it may direct.

4. National Panel of Arbitrators

In cooperation with the National Construction Industry Arbitration Committee, the AAA shall establish and maintain a National Panel of Construction Industry Arbitrators and shall appoint arbitrators therefrom as hereinafter provided.

5. Regional Offices

The AAA may, in its discretion, assign the administration of an arbitration to any of its regional offices.

6. Initiation under an Arbitration Provision in a Contract

Arbitration under an arbitration provision in a contract shall be initiated in the following manner:

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(a) The initiating party (hereinafter claimant) shall, within the time period, if any, specified in the contract(s), give written notice to the other party (hereinafter respondent) of its intention to arbitrate (Demand), which notice shall contain a statement setting forth the nature of the dispute, the amount involved, if any, the remedy sought, and the hearing locale requested, and

(b) Shall file at any regional office of the AAA three copies of the notice and three copies of the arbitration provisions of the contract, together with the appropriate administrative fee as provided in the Administrative Fee Schedule.

The AAA shall give notice of the filing to the respondent or respondents. A respondent may file an answering statement in duplicate with the AAA within ten days after notice from the AAA, in which event the respondent shall at the same time send a copy of the answering statement to the claimant. If a counterclaim is asserted, it shall contain a statement setting forth the nature of the counterclaim, the amount involved, if any, and the remedy sought. If a counterclaim is made in the answering statement, the appropriate fee provided in the Administrative Fee Schedule shall be forwarded to the AAA with the answering statement. If no answering statement is filed within the stated time, it will be treated as a denial of the claim. Failure to file an answering statement shall not operate to delay the arbitration.

7. Initiation under a Submission

Parties to any existing dispute may commence an arbitration under these rules by filing at any regional office of the AAA three copies of a written submission to arbitrate under these rules, signed by the parties. It shall contain a statement of the matter in dispute, the amount of money involved, if any, the remedy sought, and the hearing locale requested, together with the appropriate administrative fee as provided in the Administrative Fee Schedule.

8. Changes of Claim

After filing of a claim, if either party desires to make any new or different claim or counterclaim, same shall be made in writing and filed with the AAA, and a copy shall be mailed to the other party, who shall have a period of ten days from the date of such mailing within which to file

an answer with the AAA. After the arbitrator is appointed, however, no new or different claim may be submitted except with the arbitrator's consent.

9. Applicable Procedures

Unless the AAA in its discretion determines otherwise, the Expedited Procedures shall be applied in any case where no disclosed claim or counterclaim exceeds \$25,000, exclusive of interest and arbitration costs. Parties may also agree to the Expedited Procedures in cases involving claims in excess of \$25,000. The Expedited Procedures shall be applied as described in Sections 53 through 57 of these rules.

All other cases shall be administered in accordance with Sections 1 through 52 of these rules.

10. Administrative Conference, Preliminary Hearing, and Mediation Conference

At the request of any party or at the discretion of the AAA, an administrative conference with the AAA and the parties and/or their representatives will be scheduled in appropriate cases to expedite the arbitration proceedings.

In large or complex cases, at the request of any party or at the discretion of the arbitrator or the AAA, a preliminary hearing with the parties and/or their representatives and the arbitrator may be scheduled by the arbitrator to specify the issues to be resolved, stipulate to uncontested facts, and to consider any other matters that will expedite the arbitration proceedings. Consistent with the expedited nature of arbitration, the arbitrator may, at the preliminary hearing, establish (i) the extent of and schedule for the production of relevant documents and other information, (ii) the identification of any witnesses to be called, and (iii) a schedule for further hearings to resolve the dispute.

With the consent of the parties, the AAA at any stage of the proceeding may arrange a mediation conference under the Construction Industry Mediation Rules, in order to facilitate settlement. The mediator shall not be an arbitrator appointed to the case. Where the parties to a pending arbitration agree to mediate under the AAA's rules, no additional administrative fee is required to initiate the mediation.

11. Fixing of Locale

The parties may mutually agree on the locale where the arbitration is to be held. If any party requests that the hearing be held in a specific locale and the other party files no objection thereto within ten days after notice of the request has been mailed to it by the AAA, the locale shall be the one requested. If a party objects to the locale requested by the other party, the AAA shall have the power to determine the locale and its decision shall be final and binding.

12. Qualifications of an Arbitrator

Any neutral arbitrator appointed pursuant to Section 13, 14, 15, or 54, or selected by mutual choice of the parties or their appointees, shall be subject to disqualification for the reasons specified in section 19. If the parties specifically so agree in writing, the arbitrator shall not be subject to disqualification for said reasons.

Unless the parties agree otherwise, an arbitrator selected unilaterally by one party is a party-appointed arbitrator and is not subject to disqualification pursuant to Section 19.

The term "arbitrator" in these rules refers to the arbitration panel, whether composed of one or more arbitrators and whether the arbitrators are neutral or party-appointed.

13. Appointment from Panel

If the parties have not appointed an arbitrator and have not provided any other method of appointment, the arbitrator shall be appointed in the following manner: Immediately after the filing of the Demand or Submission, the AAA shall submit simultaneously to each party to the dispute an identical list of names of persons chosen from the panel.

Each party to the dispute shall have ten days from the mailing date in which to cross off any names objected to, number the remaining names in order of preference, and return the list to the AAA. If a party does not return the list within the time specified, all persons named therein shall be deemed acceptable. From among the persons who have been approved on both lists, and in accordance with the designated order of mutual preference, the AAA shall invite the acceptance of an arbitrator to serve. If the parties fail to agree on any of

the persons named, or if acceptable arbitrators are unable to act, or if for any other reason the appointment cannot be made from the submitted lists, the AAA shall have the power to make the appointment from among other members of the panel without the submission of additional lists.

14. Direct Appointment by a Party

If the agreement of the parties names an arbitrator or specifies a method of appointing an arbitrator, that designation or method shall be followed. The notice of appointment, with the name and address of the arbitrator, shall be filed with the AAA by that party. Upon the request of any appointing party, the AAA shall submit a list of members of the panel from which the party may, if it so desires, make the appointment.

If the agreement specifies a period of time within which an arbitrator shall be appointed and any party fails to make the appointment within that period, the AAA shall make the appointment.

If no period of time is specified in the agreement, the AAA shall notify the party to make the appointment. If within ten days thereafter an arbitrator has not been appointed by a party, the AAA shall make the appointment.

15. Appointment of Neutral Arbitrator by Party-Appointed Arbitrators

If the parties have selected party-appointed arbitrators, or if such arbitrators have been appointed as provided in Section 14, and the parties have authorized them to appoint a neutral arbitrator within a specified time and no appointment is made within that time or any agreed extension thereof, the AAA may appoint the neutral arbitrator, who shall act as chairperson.

If no period of time is specified for appointment of the neutral arbitrator and the party-appointed arbitrators do not make the appointment within ten days from the date of the appointment of the last party-appointed arbitrator, the AAA may appoint the neutral arbitrator, who shall act as chairperson.

If the parties have agreed that their party-appointed arbitrators shall appoint the neutral arbitrator from the panel, the AAA shall furnish to the party-appointed arbitrators, in the manner

prescribed in Section 13, a list selected from the panel, and the appointment of the neutral arbitrator shall be made as prescribed in that section.

16. Nationality of Arbitrator in International Arbitration

Where the parties are nationals or residents of different countries, any neutral arbitrator shall, upon the request of either party, be appointed from among the nationals of a country other than that of any of the parties. The request must be made prior to the time set for the appointment of the arbitrator as agreed by the parties or set by these rules.

17. Number of Arbitrators

If the arbitration agreement does not specify the number of arbitrators, the dispute shall be heard and determined by one arbitrator, unless the AAA in its discretion, directs that a greater number of arbitrators be appointed.

18. Notice to Arbitrator of Appointment

Notice of the appointment of the neutral arbitrator, whether mutually appointed by the parties or by the AAA, shall be mailed to the arbitrator by the AAA, together with a copy of these rules, and the signed acceptance of the arbitrator shall be filed with the AAA prior to the opening of the first hearing.

19. Disclosure and Challenge Procedure

Any person appointed as neutral arbitrator shall disclose to the AAA any circumstance likely to affect impartiality, including any bias or any financial or personal interest in the result of the arbitration or any past or present relationship with the parties or their representatives. Upon receipt of such information from the arbitrator or another source, the AAA shall communicate the information to the parties and, if it deems it appropriate to do so, to the arbitrator and others. Upon objection of a party to the continued service of a neutral arbitrator, the AAA shall determine whether the arbitrator should be disqualified and shall inform the parties of its decision, which shall be conclusive.

20. Vacancies

If for any reason an arbitrator should be unable to perform the duties of the office, the AAA may, on proof satisfactory to it, declare the office va-

cant. Vacancies shall be filled in accordance with the applicable provisions of these rules.

In the event of a vacancy in a panel of neutral arbitrators after the hearings have commenced, the remaining arbitrator or arbitrators may continue with the hearing and determination of the controversy, unless the parties agree otherwise.

21. Date, Time, and Place of Hearing

The arbitrator shall set the date, time, and place for each hearing. The AAA shall mail to each party notice thereof at least ten days in advance, unless the parties by mutual agreement waive such notice or modify the terms thereof.

22. Representation

Any party may be represented by counsel or other authorized representative. A party intending to be so represented shall notify the other party and the AAA of the name and address of the representative at least three days prior to the date set for the hearing at which that person is first to appear. When such a representative initiates an arbitration or responds for a party, such notice is deemed to have been given.

23. Stenographic Record

Any party desiring a stenographic record shall make arrangements directly with a stenographer and shall notify the other party of these arrangements in advance of the hearing. The requesting party or parties shall pay the cost of the record. If the transcript is agreed by the parties to be, or determined by the arbitrator to be, the official record of the proceeding, it must be made available to the arbitrator and to the other parties for inspection, at a date, time, and place determined by the arbitrator.

24. Interpreters

Any party wishing an interpreter shall make all arrangements directly with the interpreter and shall assume the costs of the service.

25. Attendance at Hearings

The arbitrator shall maintain the privacy of the hearings unless the law provides to the contrary. Any person having a direct interest in the arbitration is entitled to attend hearings. The arbitrator shall otherwise have the power to require the exclusion of any witness, other than a party or other

essential person, during the testimony of any other witness. It shall be discretionary with the arbitrator to determine the propriety of the attendance of any other person.

26. Postponements

The arbitrator for good cause shown may postpone any hearing upon the request of a party or upon the arbitrator's own initiative, and shall also grant such postponement when all of the parties agree thereto.

27. Oaths

Before proceeding with the first hearing, each arbitrator may take an oath of office and, if required by law, shall do so. The arbitrator may require witnesses to testify under oath administered by any duly qualified person and, if it is required by law or requested by any party, shall do so.

28. Majority Decision

All decisions of the arbitrators must be by a majority. The award must also be made by a majority unless the concurrence of all is expressly required by the arbitration agreement or by law.

29. Order of Proceedings and Communication with Arbitrator

A hearing shall be opened by the filing of the oath of the arbitrator, where required; by the recording of the date, time, and place of the hearing, and the presence of the arbitrator, the parties, and their representatives, if any; and by the receipt by the arbitrator of the statement of the claim and the answering statement, if any.

The arbitrator may, at the beginning of the hearing, ask for statements clarifying the issues involved. In some cases, part or all of the above will have been accomplished at the preliminary hearing conducted by the arbitrator pursuant to Section 10.

The complaining party shall then present evidence to support its claim. The defending party shall then present evidence supporting its defense. Witnesses for each party shall submit to questions or other examination. The arbitrator has the discretion to vary this procedure but shall afford a full and equal opportunity to all parties for the presentation of any material and relevant evidence.

Exhibits, when offered by either party, may be received in evidence by the arbitrator.

The names and addresses of all witnesses and a description of the exhibits in the order received shall be made a part of the record.

There shall be no direct communication between the parties and a neutral arbitrator other than at oral hearings, unless the parties and the arbitrator agree otherwise. Any other oral or written communication from the parties to a neutral arbitrator shall be directed to the AAA for transmittal to the arbitrator.

30. Arbitration in the Absence of a Party or Representative

Unless the law provides to the contrary, the arbitration may proceed in the absence of any party or representative who, after due notice, fails to be present or fails to obtain a postponement. An award shall not be made solely on the default of a party. The arbitrator shall require the party who is present to submit such evidence as the arbitrator may require for the making of an award.

31. Evidence

The parties may offer such evidence as is relevant and material to the dispute and shall produce such evidence as the arbitrator may deem necessary to an understanding and determination of the dispute. An arbitrator or other person authorized by law to subpoena witnesses or documents may do so upon the request of any party or independently.

The arbitrator shall be the judge of the relevance and materiality of the evidence offered, and conformity to legal rules of evidence shall not be necessary. All evidence shall be taken in the presence of all of the arbitrators and all of the parties, except where any of the parties is absent in default or has waived the right to be present.

32. Evidence by Affidavit and Post-hearing Filing of Documents or Other Evidence

The arbitrator may receive and consider the evidence of witnesses by affidavit, but shall give it only such weight as the arbitrator deems it entitled to after consideration of any objection made to its admission.

If the parties agree or the arbitrator directs that documents or other evidence be submitted to the arbitrator after the hearing, the documents or other evidence shall be filed with the AAA for transmission to the arbitrator. All parties shall be afforded an opportunity to examine such documents or other evidence.

33. Inspection or Investigation

An arbitrator finding it necessary to make an inspection or investigation in connection with the arbitration shall direct the AAA to so advise the parties. The arbitrator shall set the date and time and the AAA shall notify the parties. Any party who so desires may be present at such an inspection or investigation. In the event that one or all parties are not present at the inspection or investigation, the arbitrator shall make a verbal or written report to the parties and afford them an opportunity to comment.

34. Interim Measures

The arbitrator may issue such orders for interim relief as may be deemed necessary to safeguard the property that is the subject matter of the arbitration without prejudice to the rights of the parties or to the final determination of the dispute.

35. Closing of Hearing

The arbitrator shall specifically inquire of all parties whether they have any further proofs to offer or witnesses to be heard. Upon receiving negative replies or if satisfied that the record is complete, the arbitrator shall declare the hearing closed and a minute thereof shall be recorded. If briefs are to be filed, the hearing shall be declared closed as of the final date set by the arbitrator for the receipt of briefs. If documents are to be filed as provided for in Section 32 and the date set for their receipt is later than that set for the receipt of briefs, the later date shall be the date of closing the hearing. The time limit within which the arbitrator is required to make the award shall commence to run, in the absence of other agreements by the parties, upon the closing of the hearing.

36. Reopening of Hearing

The hearing may be reopened on the arbitrator's initiative, or upon application of a party, at any time before the award is made. If reopening the hearing would prevent the making of the award within the specific time agreed on by the parties

in the contract(s) out of which the controversy has arisen, the matter may not be reopened unless the parties agree on an extension of time. When no specific date is fixed in the contract, the arbitrator may reopen the hearing and shall have thirty days from the closing of the reopened hearing within which to make an award.

37. Waiver of Oral Hearing

The parties may provide, by written agreement, for the waiver of oral hearings in any case. If the parties are unable to agree as to the procedure, the AAA shall specify a fair and equitable procedure.

38. Waiver of Rules

Any party who proceeds with the arbitration after knowledge that any provision or requirement of these rules has not been complied with and who fails to state an objection thereto in writing, shall be deemed to have waived the right to object.

39. Extensions of Time

The parties may modify any period of time by mutual agreement. The AAA or the arbitrator may for good cause extend any period of time established by these rules, except the time for making the award. The AAA shall notify the parties of any extension.

40. Serving of Notice

Each party shall be deemed to have consented that any papers, notices, or process necessary or proper for the initiation or continuation of an arbitration under these rules; for any court action in connection therewith; or for the entry of judgment on any award made under these rules may be served on a party by mail addressed to the party or its representative at the last known address or by personal service, in or outside the state where the arbitration is to be held, provided that reasonable opportunity to be heard with regard thereto has been granted to the party.

The AAA and the parties may also use facsimile transmission, telex, telegram, or other written forms of electronic communication to give the notices required by these rules.

41. Time of Award

The award shall be made promptly by the arbitrator and, unless otherwise agreed by the parties or

specified by law, no later than thirty days from the date of closing the hearing, or, if oral hearings have been waived, from the date of the AAA's transmittal of the final statements and proofs to the arbitrator.

42. Form of Award

The award shall be in writing and shall be signed by a majority of the arbitrators. It shall be executed in the manner required by law.

43. Scope of Award

The arbitrator may grant any remedy or relief that the arbitrator deems just and equitable and within the scope of the agreement of the parties, including, but not limited to, specific performance of a contract. The arbitrator shall, in the award, assess arbitration fees, expenses, and compensation as provided in Sections 48, 49, and 50 in favor of any party and, in the event that any administrative fees or expenses are due the AAA, in favor of the AAA.

44. Award upon Settlement

If the parties settle their dispute during the course of the arbitration, the arbitrator may set forth the terms of the agreed settlement in an award. Such an award is referred to as a consent award.

45. Delivery of Award to Parties

Parties shall accept as legal delivery of the award the placing of the award or a true copy thereof in the mail addressed to a party or its representative at the last known address, personal service of the award, or the filing of the award in any other manner that is permitted by law.

46. Release of Documents for Judicial Proceedings

The AAA shall, upon the written request of a party, furnish to the party, at its expense, certified copies of any papers in the AAA's possession that may be required in judicial proceedings relating to the arbitration.

47. Applications to Court and Exclusion of Liability

(a) No judicial proceeding by a party relating to the subject matter of the arbitration shall be deemed a waiver of the party's right to arbitrate.

(b) Neither the AAA nor any arbitrator in a proceeding under these rules is a necessary party in judicial proceedings relating to the arbitration.

(c) Parties to these rules shall be deemed to have consented that judgment upon the arbitration award may be entered in any federal or state court having jurisdiction thereof.

(d) Neither the AAA nor any arbitrator shall be liable to any party for any act or omission in connection with any arbitration conducted under these rules.

48. Administrative Fee

As a not-for-profit organization, the AAA shall prescribe an Administrative Fee Schedule and a Refund Schedule to compensate it for the cost of providing administrative services. The schedule in effect at the time the demand for arbitration or submission agreement is received shall be applicable.

The administrative fee shall be advanced by the initiating party or parties, subject to final apportionment by the arbitrator in the award.

When a claim or counterclaim is withdrawn or settled, the refund shall be made in accordance with the Refund Schedule.

The AAA may, in the event of extreme hardship on the part of any party, defer or reduce the administrative fee.

49. Expenses

The expenses of witnesses for either side shall be paid by the party producing such witnesses. All expenses of the arbitration, including required travel and other expenses of the arbitrator, AAA representatives, and any witness and the cost of any proof produced at the direct request of the arbitrator, shall be borne equally by the parties, unless they agree otherwise or unless the arbitrator in the award assesses such expenses or any part thereof against any specified party or parties.

50. Neutral Arbitrator's Fee

Unless the parties agree otherwise, members of the National Panel of Construction Industry Arbitrators appointed as neutrals will serve without compensation for the first day of service.

Thereafter, compensation shall be based on the amount of service involved and the number of hearings. An appropriate daily rate and other arrangements will be discussed by the administrator with the parties and the arbitrator. If the parties fail to agree to the terms of compensation, an appropriate rate shall be established by the AAA and communicated in writing to the parties.

Any arrangement for the compensation of a neutral arbitrator shall be made through the AAA and not directly between the parties and the arbitrator. The terms of compensation of neutral arbitrators on a panel shall be identical.

51. Deposits

The AAA may require the parties to deposit in advance of any hearings such sums of money as it deems necessary to defray the expense of the arbitration, including the arbitrator's fee, if any, and shall render an accounting to the parties and return any unexpended balance at the conclusion of the case.

52. Interpretation and Application of Rules

The arbitrator shall interpret and apply these rules insofar as they relate to the arbitrator's powers and duties. When there is more than one arbitrator and a difference arises among them concerning the meaning or application of these rules, it shall be decided by a majority vote. If that is unobtainable, either an arbitrator or a party may refer the question to the AAA for final decision. All other rules shall be interpreted and applied by the AAA.

Expedited Procedures

53. Notice by Telephone

The parties shall accept all notices from the AAA by telephone. Such notices by the AAA shall subsequently be confirmed in writing to the parties. Should there be a failure to confirm in writing any notice hereunder, the proceeding shall nonetheless be valid if notice has, in fact, been given by telephone.

54. Appointment and Qualifications of Arbitrator

Where no disclosed claim or counterclaim exceeds \$25,000 exclusive of interest and arbitration costs,

the AAA shall submit simultaneously to each party an identical list of five proposed arbitrators drawn from the National Panel of Construction Industry Arbitrators, from which one arbitrator shall be appointed.

Each party may strike two names from the list on a peremptory basis. The list is returnable to the AAA within seven days from the date of the AAA's mailing to the parties.

If for any reason the appointment of an arbitrator cannot be made from the list, the AAA may make the appointment from among other members of the panel without the submission of additional lists.

The parties will be given notice by telephone by the AAA of the appointment of the arbitrator, who shall be subject to disqualification for the reasons specified in Section 19. The parties shall notify the AAA, by telephone, within seven days of any objection to the arbitrator appointed. Any objection by a party to the arbitrator shall be confirmed in writing to the AAA with a copy to the other party or parties.

55. Date, Time, and Place of Hearing

The arbitrator shall set the date, time, and place of the hearing. The AAA will notify the parties by telephone, at least seven days in advance of the hearing date. Formal Notice of Hearing will be sent by the AAA to the parties.

56. The Hearing

Generally, the hearing shall be completed within one day, unless the dispute is resolved by submission of documents under Section 37. The arbitrator, for good cause shown, may schedule an additional hearing to be held within seven days.

57. Time of Award

Unless otherwise agreed by the parties, the award shall be rendered not later than fourteen days from the date of the closing of the hearing.

APPENDIX 4

AAA Arbitration Clause

Any controversy or claim arising out of or relating to this contract, or the breach thereof, shall be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the Arbitrator(s) may be entered in any court having jurisdiction thereof.

or for optional arbitration:

All claims, disputes and other matters in question between the parties to this agreement, arising out of or relating to this agreement or the breach thereof, shall be decided by arbitration unless written objection to arbitration is made within (seven) days after receipt of a demand for arbitration. In the absence of timely written objection, arbitration shall be in accordance with the then most current edition of the Construction Industry Arbitration Rules of the American Arbitration Association.

APPENDIX 5
Mediation Rules



Construction Industry Mediation Rules

1. Agreement of Parties

Whenever, by stipulation or in their contract, the parties have provided for mediation of existing or future disputes under the auspices of the American Arbitration Association (AAA) or under these rules, they shall be deemed to have made these rules, as amended and in effect as of the date of the submission of the dispute, a part of their agreement.

2. Initiation of Mediation

Any party or parties to a dispute may initiate mediation by filing with the AAA a submission to mediation or a written request for mediation pursuant to these rules, together with the appropriate administrative fee contained in the Fee Schedule. Where there is no submission to mediation or contact providing for mediation, a party may request the AAA to invite another party to join in a submission to mediation. Upon receipt of such a request, the AAA will contact the other parties involved in the dispute and attempt to obtain a submission to mediation.

3. Request for Mediation

A request for mediation shall contain a brief statement of the nature of the dispute and the names, addresses, and telephone numbers of all parties to the dispute and those who will represent them, if any, in the mediation. The initiating party shall simultaneously file two copies of the request with the AAA and one copy with every other party to the dispute.

4. Appointment of Mediator

Upon receipt of a request for mediation, the AAA will appoint a qualified mediator to serve. Normally, a single mediator will be appointed unless the parties agree otherwise or the AAA determines otherwise. If the agreement of the parties names a mediator or specifies a method of appointing

a mediator, that designation or method shall be followed.

5. Qualifications of Mediator

Any mediator appointed shall be a member of the AAA's Construction Mediation Panel, with expertise in the area of the dispute and knowledgeable in the mediation process.

No person shall serve as a mediator in any dispute in which that person has any financial or personal interest in the result of the mediation, except by the written consent of all parties. Prior to accepting an appointment, the prospective mediator shall disclose any circumstance likely to create a presumption of bias or prevent a prompt meeting with the parties. Upon receipt of such information, the AAA shall either replace the mediator or immediately communicate the information to the parties for their comments. In the event that the parties disagree as to whether the mediator shall serve, the AAA will appoint another mediator. The AAA is authorized to appoint another mediator if the appointed mediator is unable to serve promptly.

6. Vacancies

If any mediator shall become unwilling or unable to serve, the AAA will appoint another mediator, unless the parties agree otherwise.

7. Representation

Any party may be represented by persons of the party's choice. The names and addresses of such persons shall be communicated in writing to all parties and to the AAA.

8. Time and Place of Mediation

The mediator shall fix the time of each mediation session. The mediation shall be held at the appropriate regional office of the AAA, or at any other convenient location agreeable to the mediator and the parties, as the mediator shall determine.

9. Identification of Matters in Dispute

At least ten days prior to the first scheduled mediation session, each party shall provide the mediator with a brief memorandum setting forth its position with regard to the issues that need to be resolved. At the discretion of the mediator, such memoranda may be mutually exchanged by the parties.

At the first session, the parties will be expected to produce all information reasonably required for the mediator to understand the issues presented. The mediator may require any party to supplement such information.

10. Authority of Mediator

The mediator does not have the authority to impose a settlement on the parties but will attempt to help them reach a satisfactory resolution of their dispute. The mediator is authorized to conduct joint and separate meetings with the parties and to make oral and written recommendations for settlement. Whenever necessary, the mediator may also obtain expert advice concerning technical aspects of the dispute, provided that the parties agree and assume the expenses of obtaining such advice. Arrangements for obtaining such advice shall be made by the mediator or the parties, as the mediator shall determine.

The mediator is authorized to end the mediation whenever, in the judgment of the mediator, further efforts at mediation would not contribute to a resolution of the dispute between the parties.

11. Privacy

Mediation sessions are private. The parties and their representatives may attend mediation sessions. Other persons may attend only with the permission of the parties and with the consent of the mediator.

12. Confidentiality

Confidential information disclosed to a mediator by the parties or by witnesses in the course of the mediation shall not be divulged by the mediator. All records, reports, or other documents received by a mediator while serving in such capacity shall be confidential. The mediator shall not be compelled to divulge such records or to testify in regard to the mediation in any adversary proceeding or judicial forum.

The parties shall maintain the confidentiality of the mediation and shall not rely on, or introduce as evidence in any arbitral, judicial, or other proceeding:

(a) views expressed or suggestions made by another party with respect to a possible settlement of the dispute;

(b) admissions made by another party in the course of the mediation proceedings;

(c) proposals made or views expressed by the mediator; or

(d) the fact that another party had or had not indicated willingness to accept a proposal for settlement made by the mediator.

13. No Stenographic Record

There shall be no stenographic record of the mediation process.

14. Termination of Mediation

The mediation shall be terminated:

(a) by the execution of a settlement agreement by the parties;

(b) by a written declaration of the mediator to the effect that further efforts at mediation are no longer worthwhile; or

(c) by a written declaration of a party or parties to the effect that the mediation proceedings are terminated.

15. Exclusion of Liability

Neither the AAA nor any mediator is a necessary party in judicial proceedings relating to the mediation.

Neither the AAA nor any mediator shall be liable to any party for any act or omission in connection with any mediation conducted under these rules.

16. Interpretation and Application of Rules

The mediator shall interpret and apply these rules insofar as they relate to the mediator's duties and responsibilities. All other rules shall be interpreted and applied by the AAA.

17. Expenses

The expenses of witnesses for either side shall be paid by the party producing such witnesses. All other expenses of the mediation, including required traveling and other expenses of the mediator and representatives of the AAA, and the expenses of any witness and the cost of any proofs or expert advice produced at the direct request of the mediator, shall be borne equally by the parties unless they agree otherwise.

APPENDIX 6

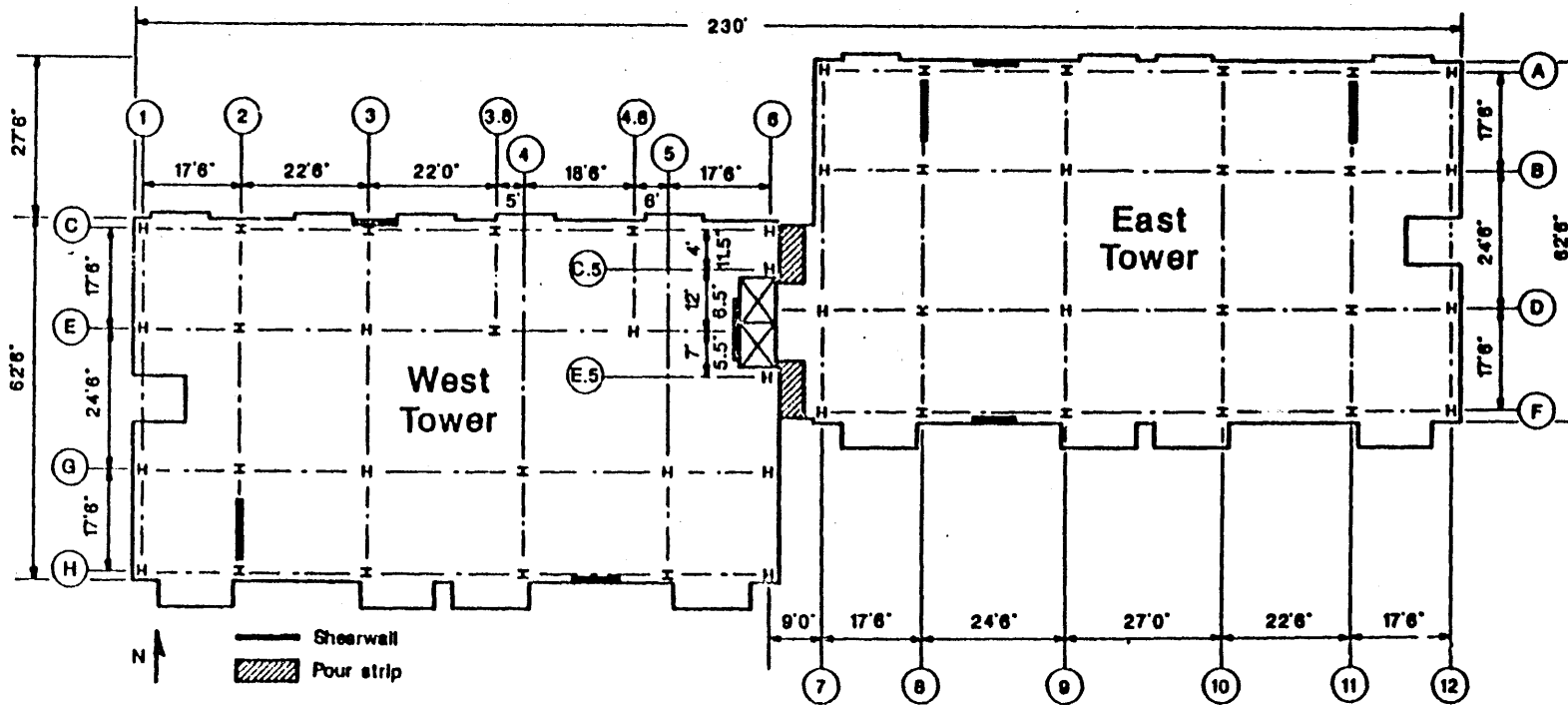
Summary L'Ambiance Investigation

L'Ambiance Plaza was to have been a 13 story apartment building with 3 levels of underground parking. It consisted of 2 rectangular towers designated the east and west towers. A plan view of the structure is shown in figure 1. The floor slabs were supported by steel columns. The slabs in each tower were placed independently and were connected by cast-in-place pour strips after final positioning.

In the lift-slab method slabs are poured on top of one another at ground level. In this case the slabs were two-way, post-tensioned flat plate slabs. The placement of the post-tensioning tendons is shown in figure 2. Columns are then erected and the slabs are lifted up the columns and into place. Lifting is accomplished through the use of hydraulic jacks which are mounted at the tops of the columns. The jacks are connected to jack rods which hang down the length of the column and attach to the slabs by means of shearheads (welded steel collars) in the slab. The jack configuration is shown in figure 3, and the attachment of the jack rod to the shearhead is shown in figure 4. The jack rod is attached to the shearhead by a simple lifting nut on the end of the threaded jack rod resting against a welded lifting angle.

The slabs were lifted in "stages" consisting of specified column lengths, with column extensions added between each stage. The lifting schedule is shown in figure 5. Slabs were lifted in groups of 3, with each group being lifted and pinned in temporary position at each stage by means of welded wedges shown in figure 6. As each lower slab reached its permanent position the shearhead was permanently welded to the column and concrete was placed in the cavity between the column and the shearhead.

Figure 1



Plan view showing column layout and shearwall locations

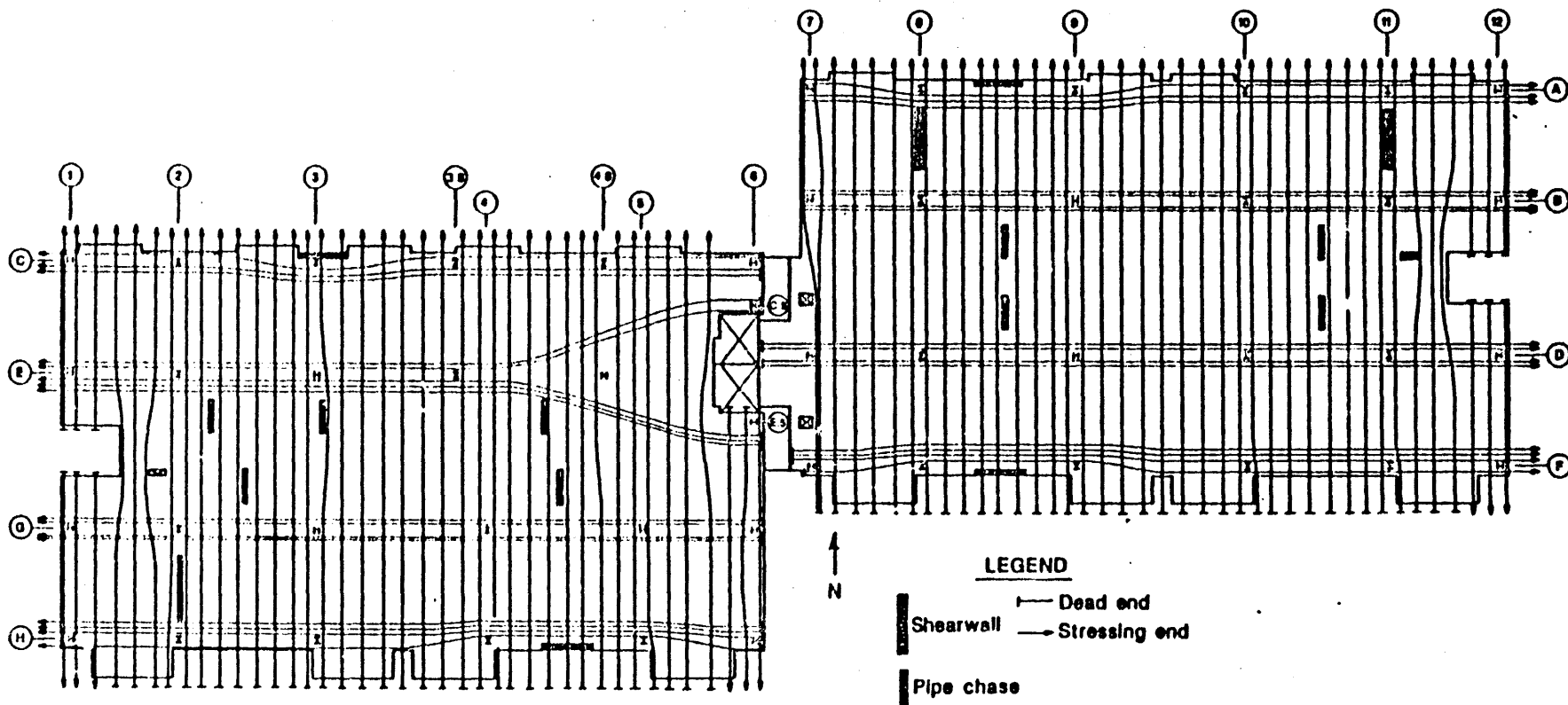
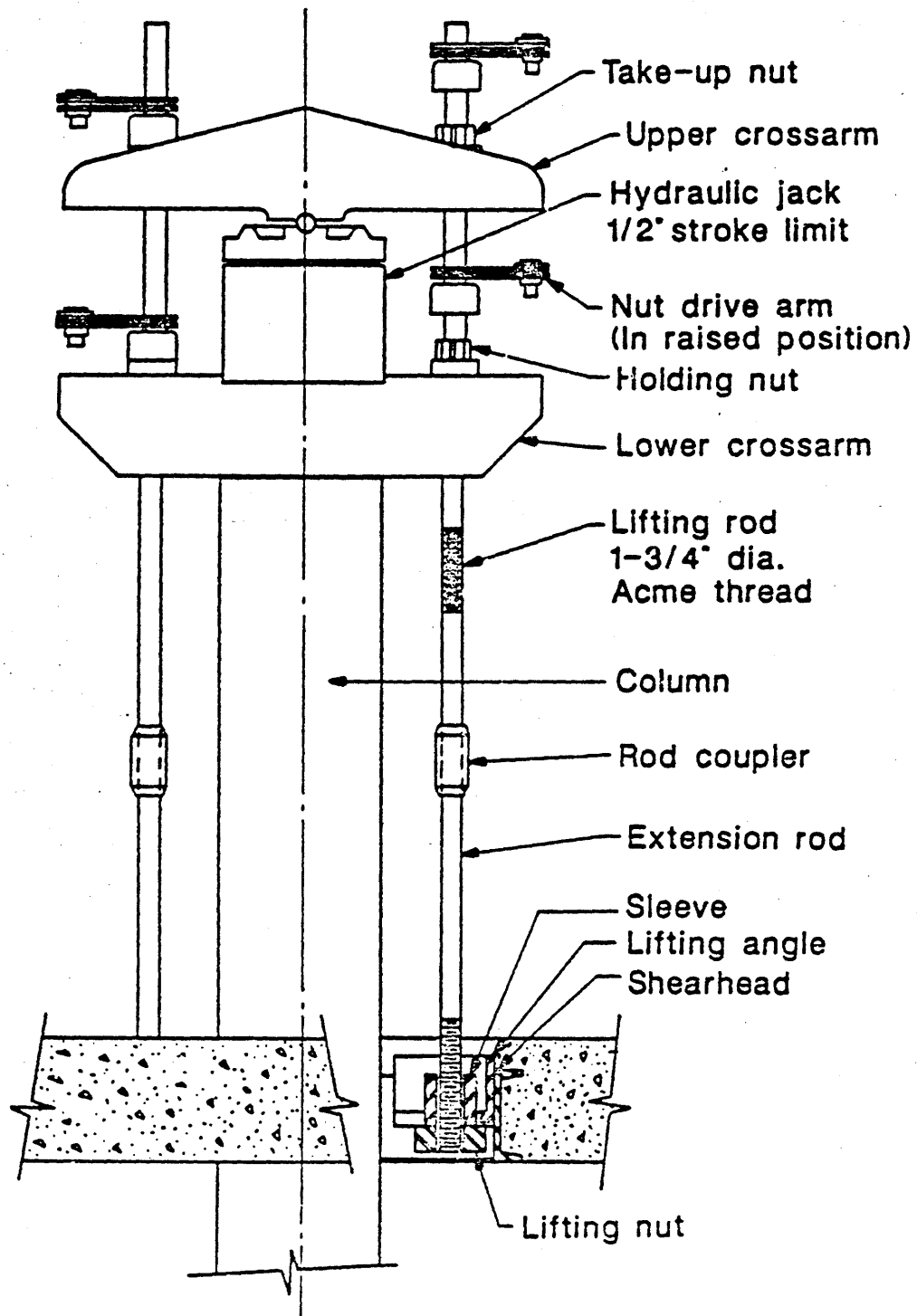
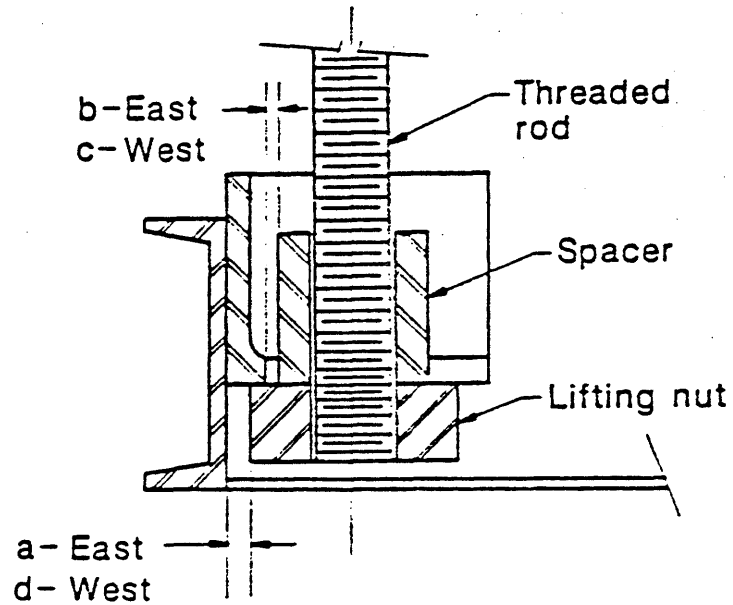
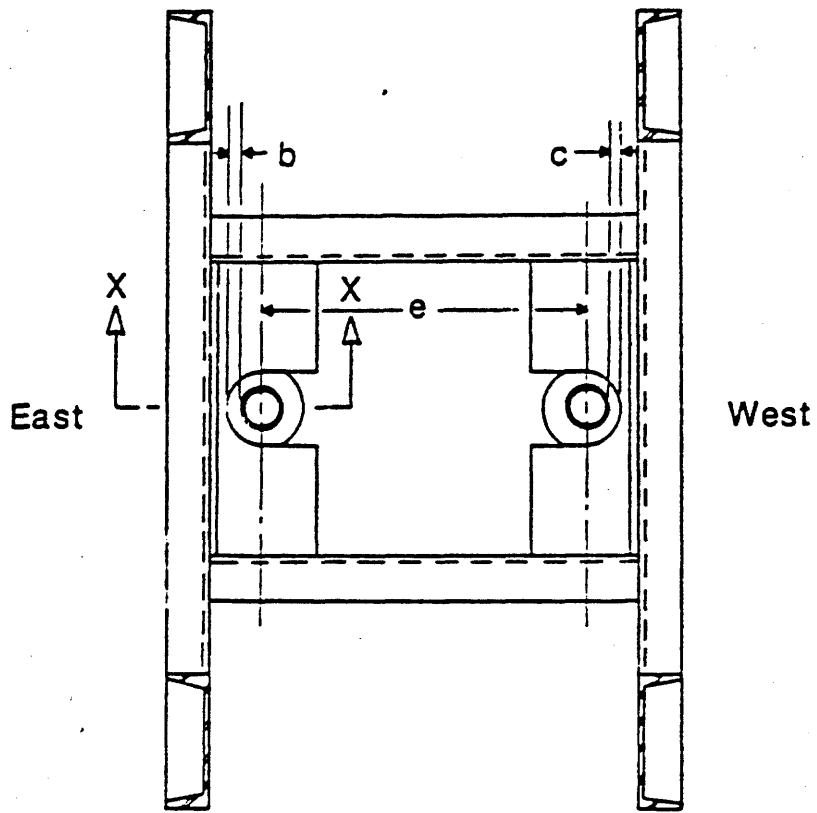


Figure 2

Location of post-tensioning tendons



Lifting assembly, 150 kip jack
 Figure 3



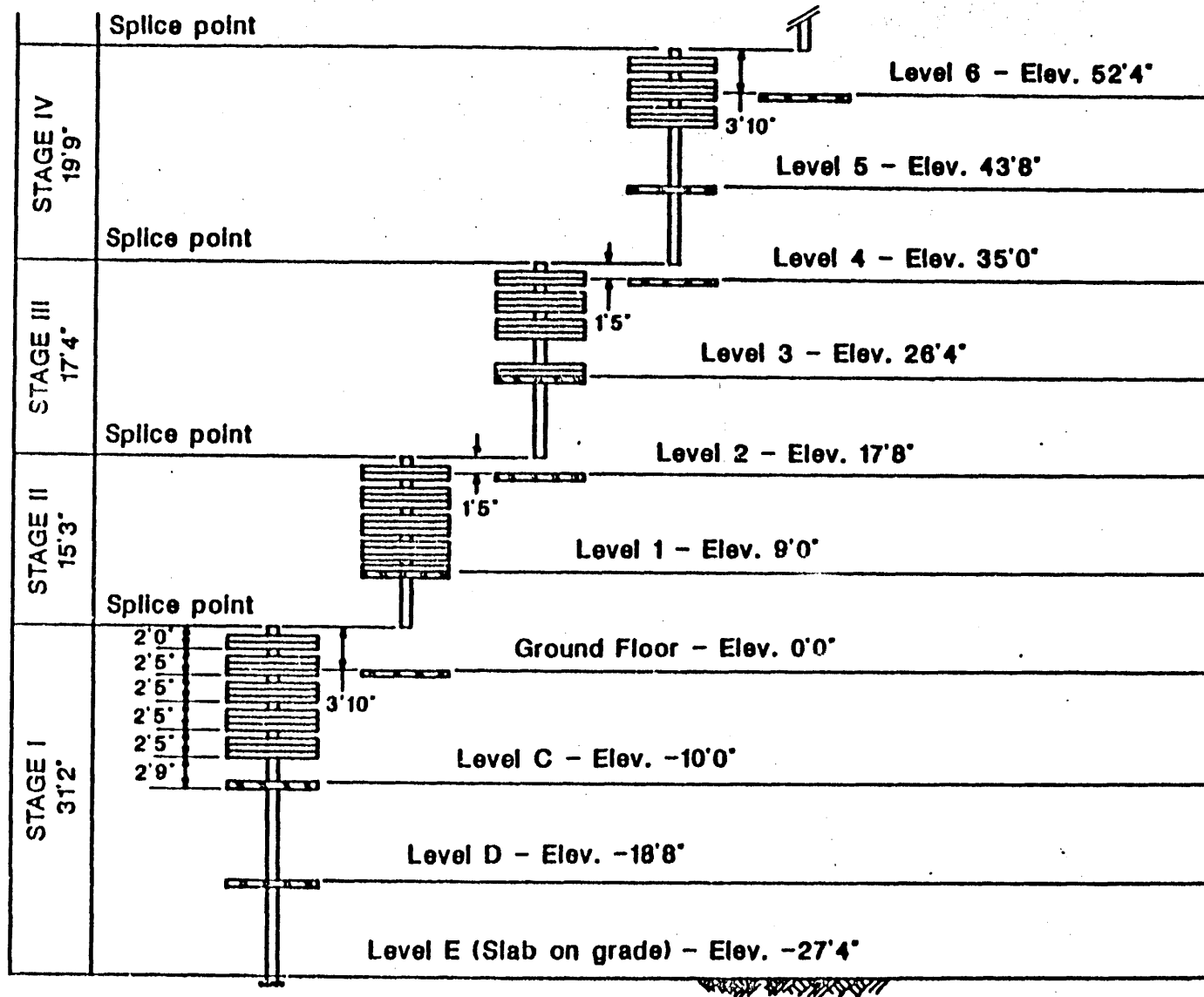
Section X-X



- a,d: Clearance between lifting nut and shearhead arm channel
- b,c: Clearance between jack rod spacer and lifting angle
- e: Center-center spacing of jack rods

Critical dimensions of shearhead loading

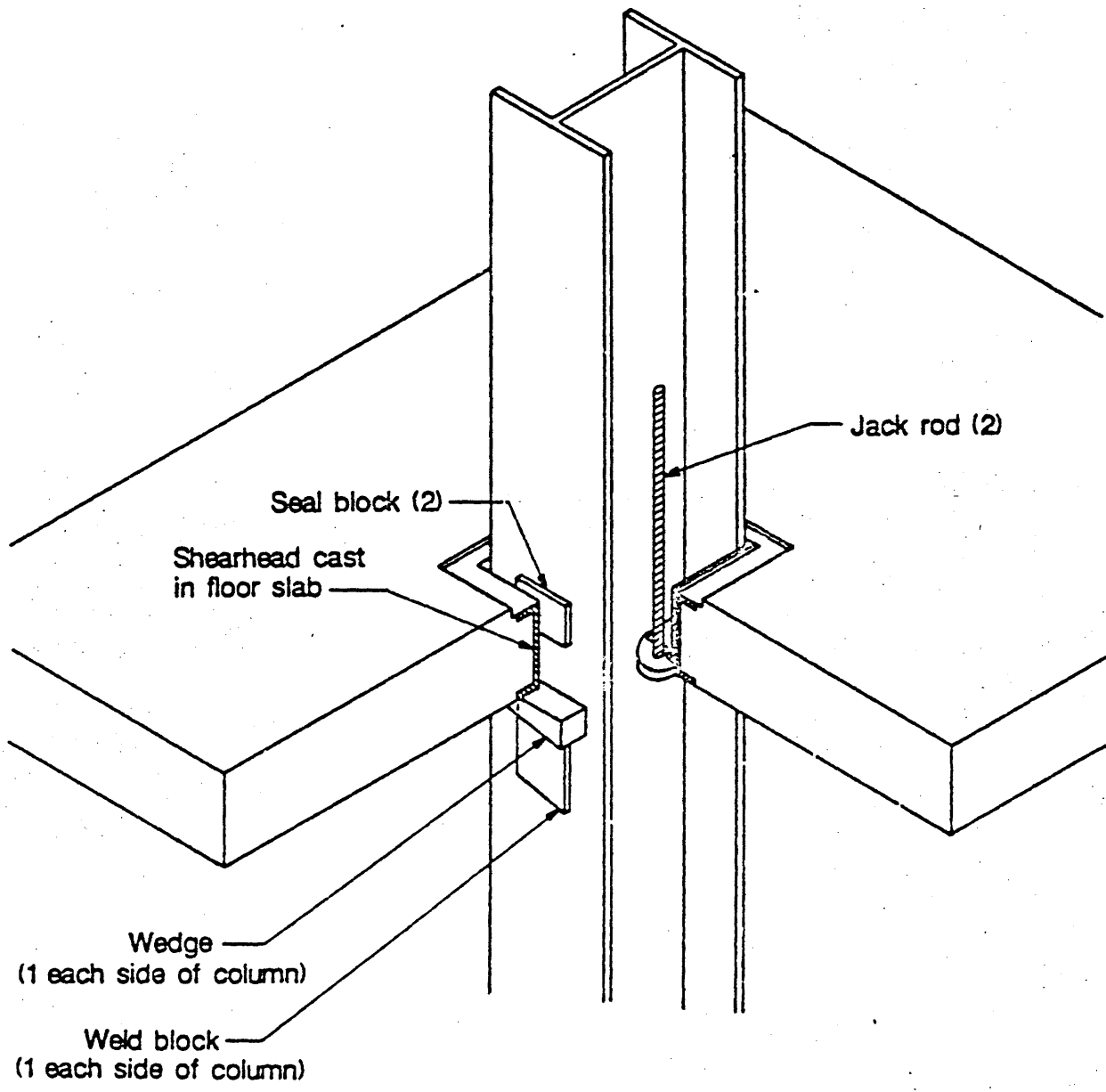
Figure 4

Figure 5



-  Slabs in temporary position
-  Slabs in permanent position

Lift slab sequence



Detail of slab to column connection

Figure 6

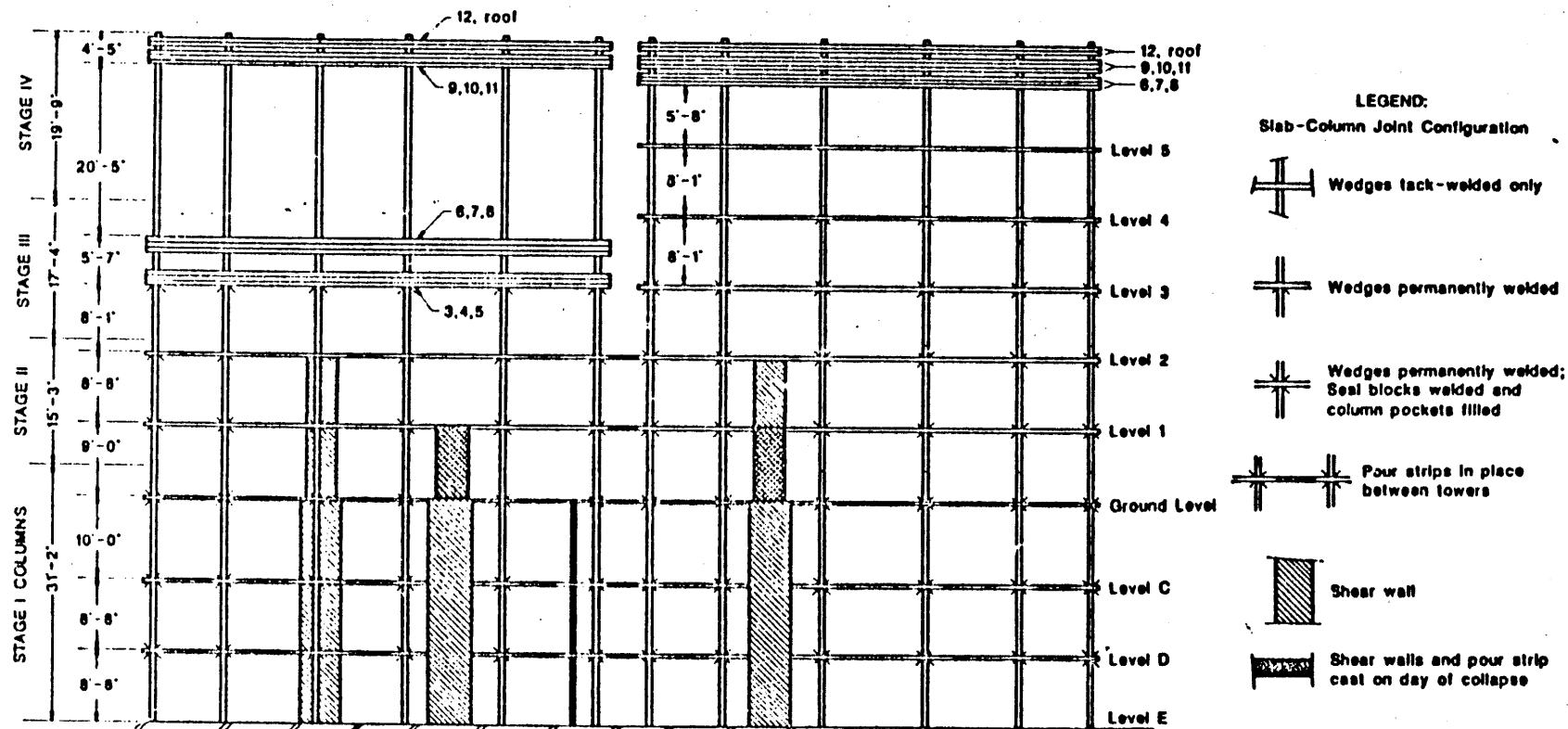
All jacks had a lifting capacity of 150 kips with the exception of the four center columns which carried the heaviest loads in each tower (referring to figure 1, in the west tower E3, E3.8, G3, G4). These jacks had a lifting capacity of 300 kips.

The status of the structure at the time of collapse is shown in figure 7. Workmen had raised the top three slabs in the west tower into position and were installing temporary wedges when the entire structure (both towers) completely collapsed. NBS interviewed 45 individuals who were on site at the time of the collapse. Fourteen of these individuals were survivors who were inside the structure during collapse. Witnesses first noticed the start of the collapse because of a loud snap or bang, which some described as the slamming of a dump truck tailgate. Witnesses estimated the duration of the collapse at between 2 and 10 seconds. All workmen who believe they saw the failure begin say that it started high in the west tower. An iron worker who was installing the wedges at column E4.8 underneath the top slabs in the west tower miraculously survived. He stated that he heard a loud noise, which he believed came from within 25 feet of where he was working, either directly above or toward the center of the slab in the vicinity of column E3.8. He then noticed the floor slab directly over his head, "cracking just like ice breaking." The floor slabs above him fell collapsing the structure beneath. Witnesses indicated that the west tower, as it fell, contacted the east tower causing its top floors to fall, collapsing the rest of the structure.

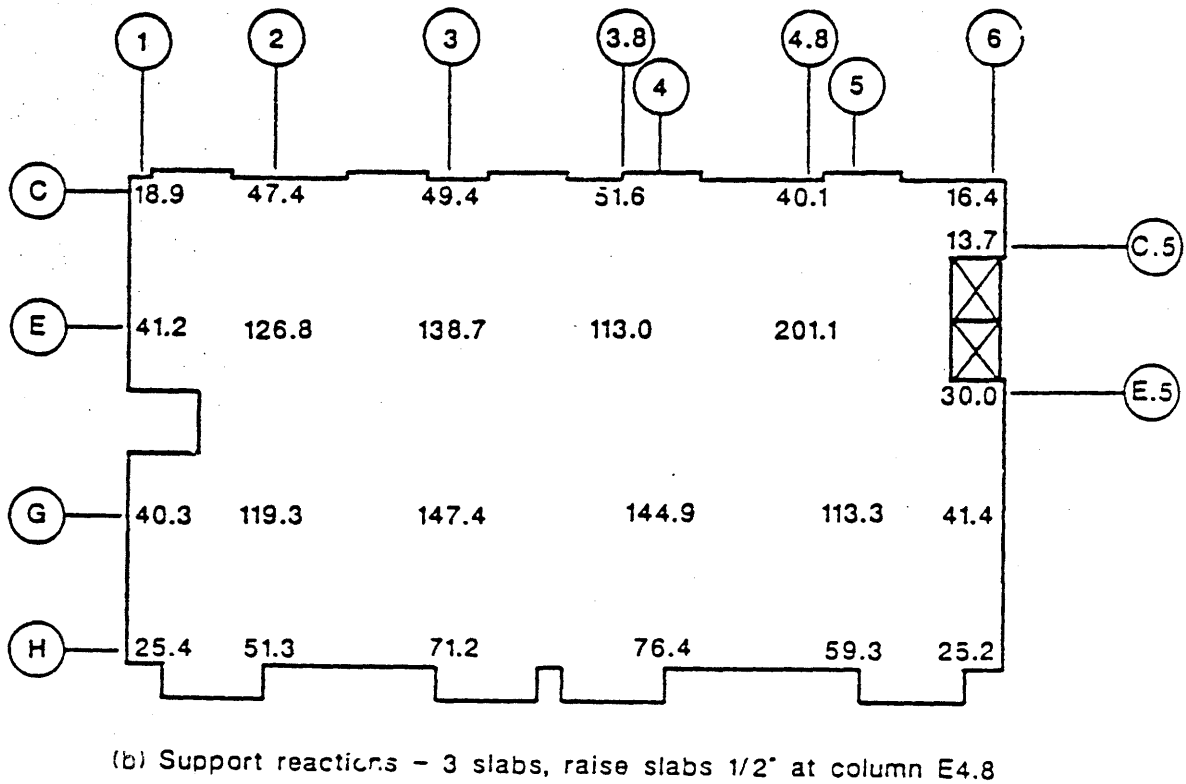
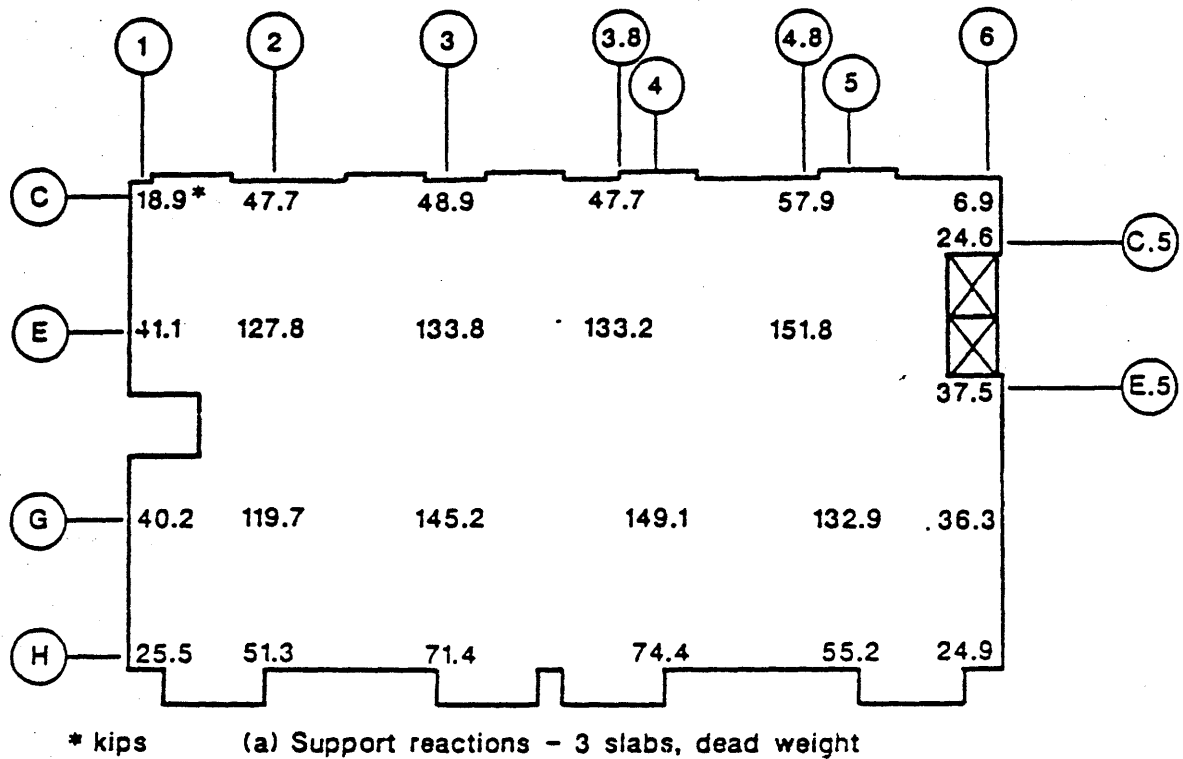
NBS proceeded to test concrete core samples, structural steel elements, post-tensioning tendons, hydraulic jacks, and shearheads.

A structural analysis was done to determine the support reactions for a three slab package at each column, the results are shown in figure 8.

Figure 7



State of construction at time of collapse
- viewed from the South



Support reactions due to jacking slab at column E4.8

Figure 8

Note that at column E4.8, a three slab package would reach the limit of the regular 150 kip jack. Some variations were applied to the analysis to take into account the fact that occasionally during placement of the slabs one column jack would be raised to facilitate placement of wedges. It was determined that raising the slab 1/2 inch at column E3.8 and E4.8 would require 190 kips and 201.1 kips respectively.

All materials met structural strength requirements. However, the Jack-shearhead system showed potential weakness. These systems were tested with concrete confined shearheads and unconfined shearheads, but no post-tensioning was used with any test shearheads. Minimum observed failure load for a concrete confined shearhead was 198 kips. Two types of failures were noted. The first occurred when the lifting angle bent sufficiently to allow the lifting nut to slip out from under the lifting angle. The second occurred when the rotating (bent) lifting angle caused the jack rod to fracture due to combined flexure and axial load. All failures occurred with little warning and were accompanied by a loud metallic bang.

The NBS report concluded that since wedges were being installed under the slabs, it was probable that installation of these wedges required some raising or lowering of the slab package. The report goes on to identify this possibility as resulting in failure of the lifting assembly at either column E3.8 or E4.8, since the force required to lift the slab 1/2 inch at those locations (201 kips) would put the shearhead into its observed minimum failure range (198 kips.)

However, the report acknowledges, the 150 kip jack at Column E4.8 could not have delivered the 198 kip force required to deform the shearhead.

The report speculates that the jack at column E3.8 could have been used for the same purpose. The 190 kip requirement to raise the slab at that location is well within the ability of the 300 kip jack located there. However, the report also notes that the large capacity jacks were paired with stiffened shearheads which demonstrated a failure load of 227 kips. Therefore, even if this jack were used, the 190 kip load should not have caused failure.

In an article pointing out some inconsistencies in the NBS report, David R. Wonder, chief engineer for Texstar Construction Corp., the lift-slab contractor, indicates that the NBS tests lacked proper confinement of the shearheads to simulate actual conditions. In an independent test of the lifting system, Texstar under the direction of Raba-Kistner Consultants, confined and post-tensioned a shearhead to conform more closely to the actual field conditions. He states that the shearhead maintained a load of 327 kips with no failure to the lifting assembly. He also notes that in a previous incident at L'Ambiance, a slab package was raised 5 inches while inadvertently attached at the center 300 kip jacks to an extra slab. This exerted a calculated load of at least 230 kips on the lifting assembly. The lifting assemblies were identical to that used at E3.8 and no failure occurred. He believes this demonstrates that the lifting assembly had a capacity far in excess of that proposed by NBS. He believes that the actual capacity of the system was above a 2.5 safety factor over the required loads, and that another failure mechanism must have caused the collapse.

One theory has been proposed by several independent structural engineers. Structural engineers familiar with the case have expressed concern regarding the splayed post-tensioning tendons at column E4.8. It

is theorized that the amount of splay is excessive and could have led to failure of the slab in shear near the same columns.

With the closing of the case through mediation, and no provision for further study, the question is as yet unresolved.

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